UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION

CDN INNOVATIONS, LLC	§	
	§	
v.	§	CIVIL NO. 4:20-CV-653-SDJ
	§	
GRANDE COMMUNICATIONS NETWORKS, LLC	§	
	§	

MEMORANDUM OPINION AND ORDER

On June 28, 2021, the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patent No. 7,293,291 ("the '291 Patent"), U.S. Patent No. 7,565,699 ("the '699 Patent"), U.S. Patent No. 6,865,532 ("the '532 Patent"), U.S. Patent No. 7,164,714 ("the '714 Patent"), and U.S. Patent No. 6,311,180 ("the '180 Patent") (collectively, "the Asserted Patents"). Having considered the parties' oral arguments, the parties' written arguments (Dkt. #28, Dkt. #41, Dkt. #43), the intrinsic and extrinsic evidence, and the relevant law, the Court issues this Claim Construction Order. *See Teva Pharms. USA v. Sandoz, Inc.*, 574 U.S. 318, 331–32, 135 S.Ct. 831, 190 L.Ed.2d 719 (2015); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc).

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I. BACKGROUND

Plaintiff CDN Innovations, LLC, ("CDN") alleges that Defendant Grande Communications Networks, LLC ("Grande") has infringed and continues to infringe the Asserted Patents.[1]

The '291 and '699 Patents

The '291 and '699 Patents are both titled "System and Method for Detecting Computer Port Inactivity." The '291 Patent issued on November 6, 2007, and was filed on July 18, 2003. The '699 Patent is a continuation of the '291 Patent. It was issued on July 21, 2009, and was filed on August 30, 2007. The '291 and '699 Patents generally relate "to broadband communications, and particularly to a system and method for detecting an unattended or idle PC with an open data port." '291 Patent col. 1 ll. 6–8; '699 Patent col. 1 ll. 13–15.

The Abstract of the '699 Patent states:

> A system and method for detecting computer port inactivity are disclosed. In one embodiment, a system includes a router that has a first interface to communicate with a first connection at an end-user computer and a second interface to communicate with a second connection at a distributed computer network. The system includes detection logic responsive to the first interface to detect inactivity at the end-user computer and further includes blocking logic responsive to the detection logic. The blocking logic is operable to selectively initiate a blocking signal to disable communicating data received at the second interface to the end-user computer via the first interface. The detection logic and the blocking logic are embedded within a port of the router.

[1] Shortly before the start of the claim-construction hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion.

Claim 1 of the '291 Patent is an illustrative claim and recites the following elements (disputed terms in italics):

> 1. A system comprising:
> a router, including: a first interface to communicate with a local area network connection at an end user computer;
> a second interface to communicate with a wide area network connection to at [sic] a distributed computer network;
> *detection logic* responsive to the first interface, the *detection logic* to detect user inactivity at the end-user computer; and
> *blocking logic* responsive to the *detection logic*, the *blocking logic* to selectively initiate a blocking signal to disable communications received at the second interface from being sent over the first interface to the end-user computer; wherein
> the *detection logic* and the *blocking logic* are *embedded* within an *auto-sensing Ethernet port* of the router.

'291 Patent col. 5 ll. 10–27.

Claim 1 of the '699 Patent is an illustrative claim and recites the following elements (disputed terms in italics):

> 1. A system comprising: a router, including:
> a first interface to communicate with a first connection at an end-user computer;
> a second interface to communicate with a second connection at a distributed computer network;
> *detection logic* responsive to the first interface to detect inactivity at the end-user computer; and
> *blocking logic* in response to said *detection logic*, the *blocking logic* to selectively initiate a blocking signal to disable communicating data received at the second interface to the end-user computer via the first interface,
> wherein the *detection logic* and the *blocking logic* are *embedded* within a port of the router.

'699 Patent col. 5 ll. 14–26.

The '532 Patent

The '532 Patent, titled "Method for Recognizing Spoken Identifiers Having Predefined Grammars," issued on March 8, 2005, and was filed on September 19, 2001. The '532 Patent generally relates "to voice operated communication devices, and more particularly to recognizing spoken identifiers." '532 Patent col. 1 ll. 7–9.

The Abstract of the '532 Patent states:

> A method for selecting and recognizing spoken identifiers first defines a phrase having word slots. The word slots are arranged in the phrase in a predetermined order and according to a predetermined grammatical structure of a target language. A set of unique words selected from the target language is assigned to each word slot in the phrase according to the grammatical structure. Then, a unique identifiers [sic] can be generated by selecting one word from each set for each slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier.

Claim 1 of the '532 Patent is an illustrative claim and recites the following elements (disputed terms in italics):

> 1. A method for selecting and recognizing spoken identifiers, comprising:
> defining a phrase having a plurality of word slots, the plurality of word slots arranged in the phrase in a predetermined order and according to a predetermined grammatical structure of a target language;
> associating a set of unique words with each word slot, the words in each set selected from the target language according to the grammatical structure;
> *generating a plurality of unique identifiers by selecting one word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier.*

'532 Patent col. 6 ll. 21–35.

The '714 Patent

The '714 Patent, titled "Video Transmission and Processing System for Generating a User Mosaic," issued on January 16, 2007, and was filed on February 15, 2002. The '714 Patent generally relates "to a video transmission system and a video processing system for transmitting a set of video signals on a communication channel and for processing said video signals in order to improve their manipulation by a television viewer, respectively." '714 Patent col. 1 ll. 5–9.

The Abstract of the '714 Patent states:

> The invention relates to a transmission system and a processing system for video signals relating to TV programs, for the purpose of constructing a mosaic of TV programs displayed on a user's television set, allowing him to select a particular TV program quickly and in a relevant manner via a menu.

Claim 12 of the '714 Patent is an illustrative claim and recites the following elements (disputed terms in italics):

> 12. A digital signal comprising:
> a plurality of primary video signals coded in accordance with an MPEG-2 standard,
> a plurality of secondary video signals coded in accordance with an MPEG-4 standard, each secondary video signal being obtained successively by sub-sampling and encoding each primary video signal, and
> *a descriptor corresponding to each secondary signal characterizing the corresponding primary video signal*.

'714 Patent col. 11 ll. 25–33.

The '180 Patent

The '180 Patent, titled "Method for Mapping and Formatting Information for a Display Device," issued on October 30, 2001, and was filed on March 28, 2000. The

'180 Patent generally relates "to data formatting and communications, and more particularly to a system and method for dynamically mapping and formatting information for presentation on a computer display device." '180 Patent col. 1 ll. 6–9.

The Abstract of the '180 Patent states:

> A system and method is disclosed for dynamically generating a display document to conform to a display device according to viewing preferences of a user of the display device. The method selects display elements from an application description file, and maps them on a display area in a functional manner. For each user, a predetermined user profile can indicate recommended viewing preferences so that a desired presentation of the information can be produced accordingly.

Claim 1 of the '180 Patent is an illustrative claim and recites the following elements (disputed terms in italics):

> A method for dynamically creating a display document to fit on at least one display device in a computer network based on one or more display limitations of the display device and one or more *viewing preferences* of a user of the display device, the method comprising the steps of:
> *providing one or more source contents in a predetermined format;*
> *recognizing the display limitations of the display device from a first information source;*
> *determining the viewing preferences of the user from a second information source;*
> *selecting one or more preferred display contents from the source contents by a mapping system in conformance with the display limitations and the viewing preferences*; and
> generating the display document containing the preferred display contents to be displayed on the display device.

'180 Patent col. 10 ll. 63 – col. 11 ll. 12.

II. APPLICABLE LAW

A. Claim Construction

A "bedrock principle" of patent law is that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs. v. Covad Commc'ns Grp.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the text of the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time." (quotation omitted)) *vacated sub nom. on other grounds CSR PLC v. Azure Networks, LLC*, 575 U.S. 959, 135 S.Ct. 1846, 181 L.Ed.2d 720 (2015) (mem.).

Courts start with the "actual words" of the claims. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998); *see also Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*,

150 F.3d 1362, 1369 (Fed. Cir. 1998)) ("[I]n all aspects of claim construction, 'the name of the game is the claim.'") *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015) (en banc). And when looking to those words, a term's context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term's meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

Following examination of the text of the claim itself, courts analyze the claim in light of the specification. Claims "must be read in view of the specification, of which they are a part." *Id.* at 1315 (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). The specification "is always highly relevant to the claim construction analysis" and is usually "dispositive." *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *accord Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). The specification "is the single best guide to the meaning of a disputed term.'" *Id.*

But while "the specification may *aid* the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be *read into* the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (citing *Constant v. Advanced*

Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988)) (emphases added); *accord Phillips*, 415 F.3d at 1323. In fact, "it is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The last piece of intrinsic evidence, the prosecution history, is another tool to supply the proper context for claim construction. Like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office ("PTO") and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. Yet courts should analyze the history with caution because it merely "represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation" and thus "often lacks the clarity of the specification," rendering it "less useful for claim construction purposes." *Id.* at 1318; *see also Athletic Alts., Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be "unhelpful as an interpretive resource").

Finally, extrinsic evidence can also be useful, but it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard*, 388 F.3d at 862). For example, technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but those sources may provide definitions that are too broad or may not be indicative of

how the term is used in the patent. *Id*. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are entirely unhelpful to a court. *Id*. Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id*. The Supreme Court recently explained the role of extrinsic evidence in claim construction:

> In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be "so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning"). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the "evidentiary underpinnings" of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharms. USA v. Sandoz, Inc., 574 U.S. at 331–32.

B. Definiteness under 35 U.S.C. § 112 ¶ 2 (pre-AIA) / § 112(b) (AIA)

Patent claims must identify with specificity and claim distinctly the subject matter regarded as the invention. 35 U.S.C. § 112 ¶ 2. A claim, when viewed in light of the intrinsic evidence, must "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910, 134 S.Ct. 2120, 189 L.Ed.2d 37 (2014). If it does not, the claim fails § 112 ¶ 2 and is therefore invalid as indefinite. *Id.* at 901. Whether a claim is indefinite is determined as of the time the application for the patent was filed. *Id.*

at 911. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *Id.* at 912 n.10. "[I]ndefiniteness is a question of law and in effect part of claim construction." *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

For instance, when a term of degree is used in a claim, "the court must determine whether the patent provides some standard for measuring that degree." *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotations omitted). Likewise, when a subjective term is used in a claim, "the court must determine whether the patent's specification supplies some standard for measuring the scope of the [term]." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005); *accord Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370–71 (Fed. Cir. 2014) (citing *Datamize*, 417 F.3d at 1351).

C. Departing from the Ordinary Meaning of a Claim Term

There are "only two exceptions to [the] general rule" that claim terms are construed according to their plain and ordinary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution."[2] *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Comput. Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014)

[2] Some cases have characterized other principles of claim construction as "exceptions" to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

("[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal."). The standards for finding lexicography or disavowal are "exacting." *GE Lighting*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must "clearly set forth a definition of the disputed claim term," and "clearly express an intent to define the term." *Id.* (quoting *Thorner*, 669 F.3d at 1365). The patentee's lexicography must appear "with reasonable clarity, deliberateness, and precision." *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee's statements in the specification or prosecution history must amount to a "clear and unmistakable" surrender. *Cordis Corp. v. Bos. Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 ("The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." (citation omitted)). And "when an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013); *see also Avid Tech., Inc. v. Harmonic, Inc.*, 812 F.3d 1040, 1045 (Fed. Cir. 2016) ("When the prosecution history is used solely to support a conclusion of patentee disclaimer, the standard for justifying the conclusion is a high one.").

But while a statement of lexicography or disavowal must be exacting and clear, it need not be "explicit." *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359,

1364 (Fed. Cir. 2016) ("[A] patent applicant need not expressly state 'my invention does not include X' to indicate his exclusion of X from the scope of his patent . . . ."). Lexicography or disavowal can be implied when, e.g., the patentee makes clear statements characterizing the scope and purpose of the invention. *See On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006) ("[W]hen the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope."). But if the patentee expresses neither an explicit or implied lexicography or disavowal, the plain meaning governs. *Trs. of Columbia Univ.*, 811 F.3d at 1364 n.2.

D. Means-Plus-Function Limitations

Where a claim limitation is expressed in "means plus function" language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112 ¶ 6. *B. Braun Med., Inc. v. Abbott Lab'ys.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C. § 112 ¶ 6 mandates that "such a claim limitation 'be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.'" *Id.* (citing 35 U.S.C. § 112 ¶ 6). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id.*

Construing a means-plus-function limitation involves multiple steps. "The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced*

Cardiovascular Sys., Inc., 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation's function, "[t]he next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.* A "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* (citation omitted). Moreover, the focus of the "corresponding structure" inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.*

III. CONSTRUCTION OF AGREED TERMS

The parties have agreed to the construction of the following terms:

Claim Term/Phrase	Agreed Construction
"associated user" '532 Patent: Claim 2	No construction needed.
"detecting logic" '699 Patent: Claim 2	"detection logic"

(Dkt. #44-1 at 33; Dkt. #41 at 14).[3] In view of the parties' agreement on the proper construction of the identified term, the Court hereby **ADOPTS** the parties' agreed construction.

IV. CONSTRUCTION OF DISPUTED TERMS

The parties dispute the meaning and scope of nineteen terms or phrases used in the Asserted Patents. The Court takes each term or phrase in turn.

[3] Citations to the parties' filings are to the filing's number in the docket (Dkt. #) and pin cites are to the page numbers assigned through ECF.

Disputed Terms in the '291 and '699 Patents

A. "blocking logic" and "detection logic"/ "detecting logic"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"blocking logic"	No construction needed. Contrary to Defendant's assertion, this claim term is not a means-plus-function clause and thus does not invoke the construction requirements associated with 35 U.S.C. § 112(f). In the alternative, to the extent the Court determines that § 112(f) applies to this claim term, the function is to selectively initiate a blocking signal to disable communications received at the second interface from being sent over the first interface to the end-user compute [sic] and the associated structures are the logic/circuitry of the Ethernet Port and equivalents to this structure.	Indefinite. To the extent the term is construed, Grande proposes: Functionality operating on physical circuitry that is separate from the main processor and control logic of the router and that is not integrated with other functions of the router, configured to transmit a signal that prevents the transmission of data through its assigned Ethernet port by opening a physical switch upon receiving a signal from the detection logic.

"detection logic" or "detecting logic"	No construction needed. Contrary to Defendant's assertion, this claim term is not a means-plus-function clause and thus does not invoke the construction requirements associated with 35 U.S.C. § 112(f). In the alternative, to the extent the Court determines that § 112(f) applies to this claim term, the function is to detect user inactivity at the end-user computer and the associated structures are the logic/circuitry of the Ethernet Port and equivalents to this structure.	Indefinite. To the extent the term is construed, Grande proposes: Functionality operating on physical circuitry that is separate from the main processor and control logic of the router, not integrated with other functions of the router, configured to automatically determine an inactivity event from an end-user computer and provide a signal to the blocking logic.

1. The Parties' Positions

The parties dispute whether the terms "blocking logic" and "detection logic" are subject to 35 U.S.C. § 112 ¶ 6 and, if so, whether there is a sufficient recitation of structure. CDN argues that this claim term is not a means-plus-function clause and does not invoke the construction requirements associated with 35 U.S.C. § 112 ¶ 6. (Dkt. #28 at 8). CDN further contends that "logic" is understood to be structure in the computer arts. (Dkt. #28 at 8) (citing MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/logic (last visited Aug. 11, 2021)). CDN also argues that this structural notion of "logic" is reinforced by the context of the claims. (Dkt. #28 at 8). CDN submits that the phrase "blocking logic" is not merely a nonce word invented for claiming. (Dkt. #28 at 9) (citing '291 Patent col. 2 ll. 10, 14, 23, col. 3 ll. 53–54, 59, 63, col. 4 ll. 40). CDN contends that if the Court determines that § 112 ¶ 6 applies, it

proposes an associated function and structure for the phrase "blocking logic." (Dkt. #28 at 9).

Regarding the term "detection logic," CDN argues that this claim term is not a means-plus-function clause and does not invoke the construction requirements associated with 35 U.S.C. § 112 ¶ 6. (Dkt. #28 at 10). CDN repeats that "logic" is understood to be structure in the computer arts. (Dkt. #28 at 10) (citing MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/logic (last visited Aug. 11, 2021)). CDN also argues that this structural notion of "logic" is reinforced by the context of the claims. (Dkt. #28 at 10). CDN submits that the phrase "detection logic" is not merely a nonce word invented for claiming. (Dkt. #28 at 10) (citing '291 Patent at col. 2 ll. 8, 10, col. 3 ll. 50–51, 54, 58–59, 64, 67, col. 4 ll. 25). CDN contends that if the Court determines that § 112 ¶ 6 applies, it proposes an associated function and structure with the phrase "detection logic." (Dkt. #28 at 11).

Grande responds that "blocking logic" should be construed under § 112 ¶ 6 and that the claims reciting it should be held invalid as indefinite. (Dkt. #41 at 8). Grande contends that the claim language is in a format consistent with means-plus-function claim limitations and that the word "logic" in the context of the claims is a nonce word. (Dkt. #41 at 9). Grande further argues that the prefix "blocking" refers to the function performed by the logic and does not impart structure. (Dkt. #41 at 9). Grande submits that reciting a location without reciting structure does not save the term "blocking logic" from the provisions of § 112 ¶ 6. (Dkt. #41 at 9–10).

Grande next argues that the specification is completely devoid of any structure and simply repeats statements of the function performed by the blocking logic. (Dkt. #41 at 10) (citing '291 Patent col. 2 ll. 10–11, col. 3 ll. 54–55, 63–64). Grande contends that the only appearance of the blocking logic in the figures is a generic rectangle 132, which it argues is insufficient to disclose any underlying structure. (Dkt. #41 at 10). Grande argues that there is no structure disclosed in the specification for the "logic/circuitry" of the Ethernet port. (Dkt. #41 at 10–11). According to Grande, the lack of disclosure of a specific structure capable of implementing the claimed functions attributed to the "blocking logic" renders the claims of the '291 and '699 Patents indefinite. (Dkt. #41 at 11).

In the alternative, Grande argues that the term should be construed as: "Functionality operating on physical circuitry that is [(A)] separate from the main processor and control logic of the router and that is not integrated with other functions of the router, and [(B)] configured to transmit a signal that prevents the transmission of data through its assigned Ethernet port by opening a physical switch upon receiving a signal from the detection logic." (Dkt. #41 at 11–12). Grande contends that Sub-part A of this construction is necessitated by the prosecution history of the '291 Patent. (Dkt. #41 at 12).

Grande further contends that Sub-part B of this construction is also necessitated by the prosecution history of the '291 Patent. (Dkt. #41 at 12). Grande argues that the patentees distinguished the prior art on the basis that the standby signal, while triggering a programmed response at the remote CO modem, does not

unequivocally prevent "communication to the end station through the CP modem." (Dkt. #41 at 12–13) (citing (Dkt. #41-2 at 60)). According to Grande, its Sub-part B incorporates the applicant's own prosecution argument by requiring that the blocking signal "prevents the transmission of data through its assigned Ethernet port by opening a physical switch upon receiving a signal from the detection logic." (Dkt. #41 at 13).

Regarding the term "detection logic," Grande argues that it should be construed under § 112 ¶ 6 and that the claims reciting it should be held indefinite. (Dkt. #41 at 14). Grande contends that the claim language is in a format consistent with means-plus-function claim limitations and that the word "logic" in the context of the claims is a nonce word. (Dkt. #41 at 14). Grande further argues that this is not changed by the recitation about where the detection logic is "embedded." (Dkt. #41 at 14).

Grande next argues that the specification is completely devoid of any structure and simply repeats statements of the function performed by the detection logic. (Dkt. #41 at 14) (citing '291 Patent col. 2 ll. 8–10, col. 3 ll. 50–52, 63–67). Grande contends that the only appearance of the detection logic in the figures is a generic rectangle 130, which it argues is insufficient to disclose any underlying structure. (Dkt. #41 at 14). Grande further argues that there is no structure disclosed in the specification for the "logic/circuitry" of the Ethernet port. (Dkt. #41 at 15). According to Grande, the lack of disclosure of a specific structure capable of implementing the

claimed functions attributed to the "detection logic" renders the claims of the '291 and '699 Patents indefinite. (Dkt. #41 at 15).

In the alternative, Grande argues that the term should be construed as: "Functionality operating on physical circuitry that is [(A)] separate from the main processor and control logic of the router, not integrated with other functions of the router, and [(B)] configured to automatically determine an inactivity event from an end-user computer and provide a signal to the blocking logic." (Dkt. #41 at 15). According to Grande, Sub-part A of this construction matches Sub-part A proposed by Grande for the blocking logic, necessitated by the prosecution history of the '291 Patent regarding the term "embedded." (Dkt. #41 at 15). Grande further argues that Sub-part B is a plain-language restatement of the recited functionality of the detection logic. (Dkt. #41 at 15).

CDN replies that the Federal Circuit's guidance on the common understanding of "logic" is that it is not a nonce word invoking § 112 ¶ 6 but instead designates structure to skilled artisans. (Dkt. #43 at 6–7). CDN further argues that other districts have similarly refused to hold that "logic" is a nonce word that raises a § 112 ¶ 6 issue. (Dkt. #43 at 7). CDN also argues that the file history provides further evidence that "blocking logic" connotes structure. (Dkt. #43 at 7) (citing (Dkt. #41-2 at 48)). CDN contends that the examiner later reiterated this physical structure recognition in an Examiner's Amendment to the '291 Patent. (Dkt. #43 at 7) (citing (Dkt. #41-2 at 4–5)).

CDN also contends that during prosecution of the '699 Patent, the examiner's Reasons for Allowance expressly pointed to the embedded logic as a component performing the detecting and blocking. (Dkt. #43 at 7) (citing (Dkt. #41-3 at 6)). CDN argues that this indicates that "logic" is a well understood and recognized structural term in the electronics arts. (Dkt. #43 at 7). According to CDN, Grande implicitly acknowledges that "logic" is understood to refer to "circuitry" by proposing "circuitry" within its alternative definition. (Dkt. #43 at 9). CDN concludes that the claim language itself indicates the detection logic and the blocking logic are physical structures because it describes them as having a specific physical location. (Dkt. #43 at 9).

Regarding Grande's alternative construction, CDN argues that Grande incorrectly contends that its proposal is necessary because otherwise the scope of the claims "would not be 'embedded' in the Ethernet port." (Dkt. #43 at 9). CDN first argues that "embedded" is already a word expressly used within the asserted claims. (Dkt. #43 at 9). CDN next argues that Grande misinterprets "embedded" as having an unusual meaning dictated by the prosecution history of the '291 Patent. (Dkt. #43 at 9). According to CDN, the patentees never asserted that the prior art attempted any blocking as indicated by the examiner's acknowledgment. (Dkt. #43 at 10) (citing (Dkt. #41-2 at 66)). CDN further contends that the patentees explained that the prior art used the detection of modem inactivity as a basis to release the inactive model to a free modem pool. (Dkt. #43 at 10–11) (citing (Dkt. #41-2 at 18, 20)). Finally, CDN

argues that for essentially these same reasons, Grande's proposal for "detection logic" should be rejected. (Dkt. #43 at 11).

2. Analysis

The term "blocking logic" appears in Asserted Claims 1, 2, 9, 22, 24, and 25 of the '291 Patent and Asserted Claims 1, 5, and 6 of the '699 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The term "detection logic" appears in Asserted Claims 1, 9, 22, 24, and 25 of the '291 Patent and Asserted Claims 1 and 7 of the '699 Patent.[4] The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim.

a. Rebuttable Presumption

Title 35 U.S.C. § 112 ¶ 6 provides: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." It is well established that "the failure to use the word 'means' . . . creates a rebuttable presumption . . . that § 112, para. 6 does not apply." *Williamson*, 792 F.3d at 1348 (quotation omitted). But "the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without

[4] As indicated above, the parties agree that the term "detecting logic" should be construed to mean "detection logic."

reciting sufficient structure for performing that function." *Id.* at 1349 (quotation omitted).

b. The Claims are Not Subject to § 112 ¶ 6.

Grande contends that the claims are in a format consistent with traditional means-plus-function claim limitations. (Dkt. #41 at 9, 14). Grande also argues that the word "logic" in the context of the claims is a nonce word. (Dkt. #41 at 9, 14). According to Grande, the prefix "blocking" refers to the functions performed by the logic and does not impart structure. (Dkt. #41 at 9). Grande submits that the specification provides no structure capable of performing the functions. (Dkt. #41 at 10, 14). For the following reasons, the Court finds that the claims are not subject to § 112 ¶ 6.

The Asserted Claims do not recite the word "means," and Grande has not overcome the rebuttable presumption that § 112 ¶ 6 does not apply. Courts in this district, as well as other districts, have concluded that in many instances the word "logic," like "circuit" or "processor," may connote sufficiently definite structure and is not a "nonce" or "functional" word that is subject to the limitations of § 112 ¶ 6. *Uniloc USA, Inc. v. Samsung Elecs. Am., Inc.*, No. 2:17-CV-651-JRG, 2018 WL 5296046, at *18 (E.D. Tex. Oct. 24, 2018) (concluding that the term "incline logic" was not subject to 35 U.S.C. § 112 ¶ 6 and did not require construction); *TecSec, Inc v. IBM.*, 731 F.3d 1336, 1348 (Fed. Cir. 2013) ("[T]he term 'digital logic' designates structure to skilled artisans—namely digital circuits that perform Boolean algebra."); *Intel Corp v. VIA Techs.*, 319 F.3d 1357, 1366 (Fed. Cir. 2003) (finding that "core logic" was adequate corresponding structure for a claimed function even though there was no

specific circuitry disclosed to show how the "core logic" was modified."); *Razor USA LLC v. DGL Grp.,* No. 19-12939 (JMV) (MF), 2021 WL 651257, at *19 (D.N.J. Feb. 19, 2021) (finding that 35 U.S.C. § 112 ¶ 6 did not apply and construing "control logic" as "electronic control circuitry"); *PCTEL, Inc. v. Agere Sys.*, No. C 03-2474 MJJ, 2005 U.S. Dist. LEXIS 34288, at *63 (N.D. Cal. Sep. 8, 2005) ("A review of the technical dictionaries supports [patentee]'s view that 'logic,' by itself, can connote structure." (citing MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS (5th ed. 1994)).

Contrary to Grande's contention, these cases illustrate that "logic" is not a nonce word automatically subjected to the limitations of § 112 ¶ 6. Instead, the Court must determine whether the stated objectives and operation of the logic connote sufficiently definite structure. *See, e.g., Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1319-21 (Fed. Cir. 2004) (finding that "circuit [for performing a function]" was sufficiently definite structure because the claim recited the "objectives and operations" of the circuit.). Here, the claims describe the objectives and operations of the system, which includes a router with detection logic and blocking logic embedded in an Ethernet port.

Specifically, the router detects user inactivity at the end-user computer via the detection logic embedded in the Ethernet port. The router then, via the embedded blocking logic, selectively initiates a blocking signal to stop communications received at the second interface from being sent over the first interface to the end-user computer. The claims further describe the structural interaction of the router and the

Ethernet port by reciting that the router includes a first interface to communicate with a local area network connection at an end-user computer, as well as a second interface to communicate with a wide area network connection to a distributed computer network.

The specification further supports this understanding of the claim terms. The specification includes a diagram depicting how "logic" is intended to be incorporated into the proposed invention. This diagram depicts "logic" in a manner identical to the depiction of other structural components employed by the invention, such as the personal computer, the router/modem, and the physical data connections. Similar to the court's conclusion in *VR Optics, LLC v. Peloton Interactive, Inc.*, the placement of "logic" alongside and in the same format as these other structural terms highlights that the patents are using the term logic to connote a known structure rather than as a nonce substitute for the word "means." 345 F.Supp.3d 394, 410 (S.D.N.Y. 2018).

The file history provides further evidence that "blocking logic" and "detecting logic" connote structure. For example, during prosecution of the '291 Patent, the examiner's description of the prior art acknowledged the structural existence of the detection logic and blocking logic:

> As per claim 6 and 25, Cohen as modified teaches the detection logic and the blocking logic is embedded within an auto-sensing Ethernet port . . . Examiner notes (a) "an auto-sensing Ethernet port" is interpreted as an Ethernet port with CSMA /CD Carrier Sense Multiple Access / Collision Detections associated with a CP modem as a complete functional entity to automatically facilitate the inactivity detection of the end-user computer (Cohen: Column 10 Line 65 -67), and (b) integrating the blocking logic with the detection logic *at the same physical device* can indeed reduce the communication overhead to the minimum).

(Dkt. #41-2 at 48) (emphasis added). The examiner later indicated the importance of this physical structure as overcoming the prior art by amending the claims to recite that "the detection logic and the blocking logic are embedded with an auto-sensing Ethernet port of the router." (Dkt. #41-2 at 4–5). The examiner did not suggest means-plus-function treatment for either "logic" term. Thus, a person of ordinary skill in the art would understand that the claim language recites sufficient structure and that the terms "blocking logic" and "detection logic" are not used as a generic term or black-box recitations of structure or abstractions.

The Court further notes that claim 9 of the '291 Patent is a method claim. § § 112 ¶ 6 may also apply to a claimed combination of steps, as in a method claim. For method claims, the initial inquiry is whether the claim limitation in question uses the phrase "step for" in describing the element. As in the case of structural claim elements, the absence of the term "step for" gives rise to a presumption that § 112 ¶ 6 does not apply. *Generation II Orthotics v. Medical Tech. Inc.*, 263 F.3d 1356, 1368 (Fed. Cir. 2001). This presumption may be overcome by a showing, by a preponderance of the evidence, that the claim recites a functional step and does not recite sufficient acts for performing the recited function. Yet simply claiming a series of steps without recital of a function does not trigger the application of § 112 ¶ 6. *Epcon Gas Sys., Inc. v. Bauer Compressors*, 279 F.3d 1022, 1028 (Fed. Cir. 2002) (citation omitted).

Further, method claims that "parallel" or have limitations similar to apparatus claims subject to § 112 ¶ 6 are not themselves necessarily subject to the requirements

of § 112 ¶ 6. *Id.* Instead, "[e]ach claim must be independently reviewed in order to determine if it is subject to the requirements of § 112, paragraph 6." *Id.* For the reasons stated above, the Court finds that Grande has not shown that the terms "blocking logic" and "detection logic" should be subject to § 112 ¶ 6 in claim 9 of the '291 Patent.

It is true that when a limitation is a means-plus-function limitation, and the corresponding structure is software, there needs to be an algorithm for the software or else the means-plus-function limitation will be considered indefinite unless the function can be performed by a general purpose computer. *See Function Media, L.L.C. v. Google Inc.*, 708 F.3d 1310, 1318 (Fed. Cir. 2013) (holding that the corresponding disclosure for a computer-implemented means-plus-function claim is an algorithm). But that authority is not on point because that definiteness analysis is triggered only when the limitation is a means-plus-function limitation.

Here, Grande has conflated the steps in the § 112 ¶ 6 analysis by simply assuming that the limitation is a means-plus-function limitation. *See, e.g.*, *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298–99 (Fed. Cir. 2014) ("Requiring traditional physical structure in software limitations lacking the term 'means' would result in all of these limitations being construed as means-plus-function limitations and subsequently being found indefinite." (internal quotation marks added)) *overruled on other grounds by Williamson*, 792 F.3d 1339; *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1007–09 (Fed. Cir. 2018) (holding that the district court erred by effectively

treating "program" and "user interface code" as nonce words in determining that the claims recited means-plus-function limitations).

Grande also argues that the prefixes "blocking" and "detection" refer to the function performed by the logic and do not impart structure. Again, the mere presence of a word like "logic" does not necessarily mean that a claim is governed by § 112 ¶ 6. Moreover, an adjective can provide sufficient structure to a word like "logic." In summary, although the presumption against § 112 ¶ 6 is no longer "strong," it is still a presumption that Grande must affirmatively overcome. In the context of the intrinsic record, the Court finds that Grande has not shown that the terms "blocking logic" and "detection logic" should be subject to § 112 ¶ 6. Accordingly, the Court finds that the disputed terms are not means-plus-function terms governed by § 112 ¶ 6.

c. The Terms Do Not Require Construction.

In the alternative, Grande argues that the term "blocking logic" should be construed as: "functionality operating on physical circuitry that is [(A)] separate from the main processor and control logic of the router and that is not integrated with other functions of the router, and [(B)] configured to transmit a signal that prevents the transmission of data through its assigned Ethernet port by opening a physical switch upon receiving a signal from the detection logic." (Dkt. #41 at 12). Similarly, Grande argues that the term "detection logic" should be construed as: "functionality operating on physical circuitry that is [(A)] separate from the main processor and control logic of the router, not integrated with other functions of the router, and

[(B)] configured to automatically determine an inactivity event from an end-user computer and provide a signal to the blocking logic." (Dkt. #41 at 15).

Grande asserts that Sub-part A of its constructions is necessitated by the prosecution history of the '291 Patent. (Dkt. #41 at 12, 15). According to Grande, the patentees disclaimed any embodiments for the blocking logic and detection logic that are not "embedded" in the Ethernet port, as it proposes. (Dkt. #41 at 12, 15). Grande does not provide arguments but instead points to its arguments for the disputed term "embedded." (Dkt. #41 at 12). To the extent that there was a prosecution disclaimer, the issue will be resolved by the Court's construction of the term "embedded." The Court finds that reading the construction of "embedded" into these terms would be redundant and confusing to a jury.

Regarding Sub-part B, the Court finds that there was no clear and unambiguous disavowal of the full claim scope. Grande contends that the patentees for the '291 Patent distinguished Cohen on the basis that the standby signal, while triggering a programmed response at the remote CO modem, does not unequivocally prevent "communication to the end station through the CP modem." (Dkt. #41 at 13) (citing (Dkt. #41-2 at 60)). The Court disagrees that the patentees' arguments warrant the additional limitations Grande attempts to read into these terms. In fact, the patentees explained that Cohen, instead of issuing a blocking command, used the detection of modem inactivity as a basis to release the inactive modem to a free modem pool. Specifically, the patentees agued the following:

> Cohen discloses a customer premise digital subscriber line (CP DSL) modem that may issue a local standby command to a central office (CO)

> modem in a DSL multiplexer when there is no activity at the CP DSL modem Ethernet port. The DSL multiplexer will release the inactive CP DSL modem to a free modem pool.

(Dkt. #41-2 at 18). The patentees further explained:

> Cohen does not disclose determining inactivity of an end-user computer at routing equipment (i.e., though, a modem is not receiving data from a computer, the computer is not necessarily inactive), as recited in claim 1. Additionally, Cohen does not disclose blocking logic that selectively initiates a blocking signal to disable communications received at one interface of the router from being sent to an end-user computer via another interface of the router, as recited in claim 1"

(Dkt. #41-2 at 18). Moreover, the alleged "disclaimer" is recited in the claim language as drafted. For example, claim 1 recites "the detection logic to detect user inactivity at the end-user computer" and "the blocking logic to selectively initiate a blocking signal to disable communications received at the second interface from being sent over the first interface to the end-user computer." Grande's only argument for its Sub-part B for the "detection logic" term is a plain-language restatement of the recited functionality of the detection logic. Grande has not provided a persuasive reason to redraft the claim language as it proposes. Accordingly, the terms will be given their plain and ordinary meaning. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the terms **"blocking logic"** and **"detection logic"** are given their **plain and ordinary meaning.**

B. "embedded"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"embedded"	No construction needed.	"physically associated only with, and capable of operating only with, a single assigned Ethernet port."

1. The Parties' Positions

The parties dispute whether the term "embedded" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 11). Regarding Grande's construction, CDN contends that it includes words like "only," "assigned," and "capable of operating," which it contends untethers the claim from any intrinsic support. (Dkt. #28 at 12). CDN further contends that these words evade even a commonsense understanding of "embedded." (Dkt. #28 at 12).

Grande responds that Figure 1 of the '291 Patent expressly illustrates that the detection logic and blocking logic are physically associated only with a single auto-sensing Ethernet port, because both elements are completely encompassed within the single port 120. (Dkt. #41 at 16). Grande argues that the broader context of the claim language supports that the detection and blocking logic are each physically encompassed by and associated only with a single auto-sensing Ethernet port. (Dkt. #41 at 16) (citing '291 Patent at claims 1, 9, and 22; '699 Patent at claims 1 and 9). According to Grande, Ethernet port 120 contains the logic in a manner that it is a self-contained port. (Dkt. #41 at 16).

Grande also argues that the patentees for the '291 Patent made a specific argument with respect to the claim term "embedded" to obtain an allowance over

cited prior art. (Dkt. #41 at 17) (citing (Dkt. #41-2 at 42, 82)). Grande contends that the patentees distinguished Cohen by arguing that it did not describe such detection logic embedded within the specific Ethernet port having no physical or operational component associated with other parts of the electronic device. (Dkt. #41 at 17–18). According to Grande, the patentees and the examiner agreed that including the "embedded" language into each of the independent claims would result in allowance of the '291 Patent. (Dkt. #41 at 18) (citing (Dkt. #41-2 at 10, 7); (Dkt. #41-3 at 6)).

CDN replies that the Meriam Webster English dictionary defines "embedded" in the context "of a device or system" as "functioning as part of a larger device rather than as an independent unit or system." (Dkt. #43 at 11–12) (citing (Dkt. #43-1)). CDN further argues that Grande is wrong to assert that the patentees for the '291 Patent added "embedded" because the cited prior art (Cohen) disclosed detection logic within the claimed router. (Dkt. #43 at 11–12). CDN submits that the patentees never admitted that Cohen disclosed the ability to detect end-user computer activity and never argued that Cohen had detection logic in the CP modem but not in the CP modem's Ethernet port. (Dkt. #43 at 11–12). According to CDN, the patentees argued that Cohen failed to disclose router equipment with the ability to determine inactivity of an end-user computer. (Dkt. #43 at 11–12) (citing (Dkt. #41-2 at 18)).

CDN further argues that the "embedded" limitation added during prosecution combines within one collective phrase both the detection logic and blocking logic, which are both said to be "embedded" within the same port. (Dkt. #43 at 13). CDN contends that it is inappropriate to assume that the patentees and examiner intended

for "embedded" to have the meaning Grande proposes. (Dkt. #43 at 13). Finally, CDN argues that the claims were deemed allowable after agreement to limit them to a combined detection logic/blocking logic placement within the same router, not that these components need be placed somewhere else within the router that was not already disclosed in Cohen. (*Id.*) (citing (Dkt. #41-2 at 10)).

2. Analysis

The term "embedded" appears in Asserted Claims 1, 9, 22, 24, and 25 of the '291 Patent; and Asserted Claims 1 and 9 of the '699 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The "embedded" limitation was originally included in dependent claim 6 of the application that became the '291 Patent. (Dkt. #41-2 at 82). On an administrative appeal of the rejection, the patentees for the '291 Patent argued that the claim term "embedded" in dependent claim 6 distinguished over the cited prior art as follows:

> Further, the dependent claims recite additional features not disclosed by Cohen and Shaffer. For example, neither Cohen, nor Shaffer, disclose detection logic and blocking logic embedded within an auto-sensing Ethernet port of the router, as recited in claim 6. In contrast to claim 6, Cohen discloses that a customer premise digital subscriber line (DSL) modem may issue a local standby command when there is no activity detected by the customer premise modem at an Ethernet port of the customer premise modem. (See Cohen, col. 10, line 63 — col. 11, line 3). In contrast to claim 6, Shaffer does not disclose or suggest a router including an auto-sensing Ethernet port and detection logic and blocking logic embedded within the router Ethernet port, as recited in claim 6. For this additional reason, claim 6 is allowable.

(Dkt. #41-2 at 19). The Notice of Allowability included an Examiner's Amendment that incorporated the "embedded" language into all of the independent claims.

(Dkt. #41-2 at 5–7). The Notice further indicated that the "claims are allowable over prior arts because the CPA (Cited Prior Art) of record fails to teach or render obvious the claimed limitations in combination with the specific added limitations [the "embedded" limitation], as recited in independent claims 1, 10, 19, 23 and 26." (Dkt. #41-2 at 7). A similar statement was made in the Notice of Allowability for the '699 Patent. (Dkt. #41-3 at 6). Thus, the prosecution history indicated that the "embedded" limitation was critical in distinguishing the prior art and placing the claims in condition for allowance.

The specification further states that "[i]n an exemplary embodiment, the detection logic 130 and the blocking logic 132 are embedded within the auto sensing Ethernet port 120" and that "[i]n other embodiments, these elements may be separate components or may be integrated with other functions." ('291 Patent col. 3 ll. 58–62). Thus, the specification indicates that the patentees distinguished "embedded" components from components that are separate components. In other words, the intrinsic evidence indicates that the patentees intended "embedded" to mean "integrated as one component." Indeed, the examiner noted that "integrating the blocking logic with the detection logic at the same physical device can indeed reduce the communication overhead to the minimum." (Dkt. #41-2 at 48).

Finally, CDN notes that the Meriam-Webster English dictionary defines "embedded" in the context "of a device or system" as "functioning as part of a larger device rather than as an independent unit or system." (Dkt. #43-1 at 2). This extrinsic evidence is consistent with the intrinsic evidence and further confirms that

"embedded" should be construed to mean "integrated as one component." As discussed, the claims were deemed allowable after agreement to limit the detection logic/blocking logic as one integrated component (i.e., "embedded") within the claimed router. (Dkt. #41-2 at 4). But the claims were not distinguished based on placing these components somewhere else within the router that was not already disclosed in Cohen.

Grande contends that its construction "is in harmony with the surrounding claim language, specification, figures, and prosecution history of the '291 patent." (Dkt. #41 at 18). The Court disagrees. First, Grande incorrectly argues that the patentees for the '291 Patent added the "embedded" because the cited prior art (Cohen) disclosed detection logic within the claimed router. As discussed above, the patentees explicitly argued that "Cohen does not disclose determining inactivity of an end-user computer at routing equipment (*i.e.*, though, a modem is not receiving data from a computer, the computer is not necessarily inactive), as recited in claim 1." (Dkt. #41-2 at 18). Likewise, the patentees did not argue that Cohen had detection logic in the customer-precise (CP) modem but not in the CP modem's Ethernet port. Instead, the patentees explained that Cohen disclosed a CP modem capable of issuing a standby command to a central office modem when there is no activity at the CP modem. However, a lack of activity at the CP modem does not equate to inactivity at the end-user computer.

Second, Grande's construction reads into the claims the terms "only," "assigned," and "capable of operating." Grande did not indicate, and the Court did not

find, where any of these terms actually appear in the intrinsic record. Indeed, nothing in the intrinsic record limits the term "embedded" to "physically associated only with, and capable of operating only with, a single assigned Ethernet port." Accordingly, the Court rejects Grande's construction. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"embedded"** to mean **"integrated as one component."**

C. "auto-sensing"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"auto-sensing"	No construction needed.	Indefinite.

1. The Parties' Positions

The parties dispute whether the term "auto-sensing" is indefinite under 35 U.S.C. § 112 ¶ 2 for failing "to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 572 U.S. at 901. CDN argues that no construction of this term is necessary. (Dkt. #28 at 12). CDN contends that "auto" is a well-known prefix or combining form adjective for automatic. (Dkt. #28 at 13) (citing MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/auto (last visited Aug. 11, 2021)). According to CDN, the use of "auto sensing" in the specification is consistent with the notion of automatic (non-manual) sensing, i.e., detecting of activity. (Dkt. #28 at 13) (citing '291 Patent col. 3 ll. 50–52).

Grande responds that the specification uses the term "auto sensing" without the hyphen, and uses it only five times, each time as an adjective modifying the Ethernet Port 120. (Dkt. #41 at 19) (citing '291 Patent col. 2 ll. 22–24, col. 3 ll. 37–40, 50–52, 53–54, 58–60). Grande argues that the surrounding context of the claims provides no insight and that the term "auto-sensing" by itself has no plain and ordinary meaning. (Dkt. #41 at 19). Grande further contends that there are common uses of the prefix "auto" that do not imply "non-manual." (Dkt. #41 at 20). Grande submits that the "sensing" portion of the term is susceptible to numerous competing interpretations and that the compound term "auto-sensing" clearly suggests a meaning apart from the "detection logic." (Dkt. #41 at 20). According to Grande, those skilled in the art are left in the "zone of uncertainty" with respect to what activity falls within the scope of the claim term "auto-sensing." (Dkt. #41 at 20).

CDN replies that the intrinsic record shows what the examiner understood the plain language meaning of "auto-sensing." (Dkt. #43 at 14) (citing (Dkt. #41-2 at 48)). According to CDN, the examiner had no difficulty recognizing and applying a common understanding of this term to a person of ordinary skill. (Dkt. #43 at 14). CDN submits that this term needs no construction. (Dkt. #43 at 14).

2. Analysis

The term "auto-sensing" appears in Asserted Claims 1, 9, 22, and 25 of the '291 Patent and Asserted Claims 2 and 10 of the '699 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The Court further finds that the phrase "auto-sensing" is not indefinite and should be construed to mean "automatically enabling." The intrinsic

record shows that the examiner understood the meaning of "auto-sensing." Specifically, during prosecution the examiner noted that he was interpreting an "auto-sensing" Ethernet port as follows:

> Examiner notes (a) "an auto-sensing Ethernet port" is interpreted as an Ethernet port with CSMA/CD Carrier Sense Multiple Access / Collision Detections associated with a CP modem as a complete functional entity *to automatically facilitate* the inactivity detection of the end-user computer (Cohen: Column 10 Line 65-67)

(Dkt. #41-2 at 48) (emphasis added). Thus, the intrinsic evidence indicates that a person of ordinary skill in the art would understand the term "auto-sensing" to mean automatically facilitating or enabling. Accordingly, the Court finds that the claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.

Grande argues that the specification is devoid of any definition or insight as to the meaning of "auto-sensing." (Dkt. #41 at 19). Grande also contends that the surrounding context of the claims provides no insight. (Dkt. #41 at 19). Grande asserts that the term "auto-sensing" by itself has no plain and ordinary meaning. (Dkt. #41 at 19). According to Grande, there are common uses of the prefix "auto" that do not imply "non-manual." (Dkt. #41 at 20). Grande further argues that the "sensing" portion of the term also is susceptible to numerous competing interpretations. (Dkt. #41 at 20).

The definiteness requirement of 35 U.S.C. § 112 "mandates clarity, while recognizing that absolute precision is unattainable." *Nautilus*, 572 U.S. at 910. "The Supreme Court recognized that 'some modicum of uncertainty'" is expected and that "all that is required is that the patent apprise [persons of ordinary skill] of the scope

of the invention." *Freeny v. Apple Inc.*, No. 2:13-CV-00361-WCB, 2014 WL 4294505, at *5 (E.D. Tex. Aug. 28, 2014) (quoting *Nautilus*, 572 U.S. at 910). For the reasons discussed above, the Court finds that the claims, viewed in light of the specification and the prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. Accordingly, Grande has failed to prove by clear and convincing evidence that the term is indefinite. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"auto-sensing"** to mean **"automatically enabling."**

D. "Ethernet port"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"Ethernet port"	No construction needed.	"the collection of all physical hardware that relates exclusively to the operation of a single ethernet port on a router"

1. The Parties' Positions

The parties dispute whether the term "Ethernet port" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 13). CDN also contends that Grande's proposed construction circularly uses the term "Ethernet port" to define "Ethernet port." (Dkt. #28 at 13). CDN further argues that including words like "exclusively," "single," and "collection of all physical hardware" untethers the claim from any intrinsic support. (Dkt. #28 at 14). CDN submits that anyone who

has ever plugged in a cable to an "Ethernet port" of a router or computer would question the accuracy of Grande's proposal. (Dkt. #28 at 14).

Grande responds that, without a construction, the jury will lack guidance as to whether the term "Ethernet Port" refers to a physical Ethernet connection or to a software-defined network communications port. (Dkt. #41 at 21). Grande argues that the term "port" in the context of an Ethernet network implementation has two common meanings: a hardware port or a software-based meaning. (Dkt. #41 at 21) (citing (Dkt. #41-4); (Dkt. #41-5)). Grande submits that the specification of the '291 Patent uses the term "port" in a fashion consistent with the software-based meaning, (Dkt. #41 at 21) (citing '291 Patent at Abstract, col. 1 ll. 8–9, 24–25, col. 4 ll. 23–24), but that the term "Ethernet port" should be construed as limited to the physical hardware-based definition, (Dkt. #41 at 21–22) (citing '291 Patent col. 3 ll. 37–40, Figure 1).

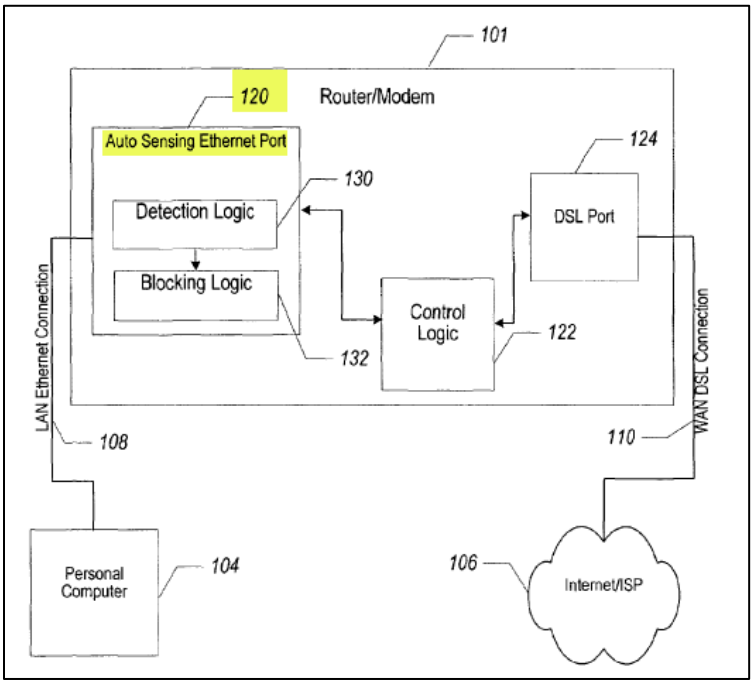
Grande also argues that the use of the term "interface" in the specification is consistent with the "physical hardware" meaning. (Dkt. #41 at 22) (citing (Dkt. #41-4)). According to Grande, its construction concisely defines what the claimed element is and the range of physical devices it refers to. (Dkt. #41 at 22) (citing '291 Patent col. 3 ll. 37–40, Figure 1).

CDN replies that claims should not be narrowed merely to force a patentee to select between two possible implementations or embodiments for coverage of the claims. (Dkt. #43 at 14). According to CDN, claim terms are afforded their ordinary meaning even when those ordinary meanings encompass multiple possibilities.

(Dkt. #43 at 14). CDN argues that Grande improperly excludes disclosed embodiments by arguing for a hardware-based meaning and excluding the software-based meaning. (Dkt. #43 at 15).

2. Analysis

The term "Ethernet port" appears in Asserted Claims 1, 9, 22, and 25 of the '291 Patent and Asserted Claims 3 and 11 of the '699 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. Figure 1 illustrates "auto sensing Ethernet Port" 120 as part of the router/modem 101.



'291 Patent at Figure 1 (highlighting added). The specification states that "[t]he example system presented in FIG. 1 includes an end-user personal computer (PC) 104" and that "[t]he system also includes a first interface 108 to a local area network (LAN) Ethernet connection to the end-user computer 104 in communication with an

auto sensing Ethernet port 120 in a router/modem 101." '291 Patent col. 3 ll. 35–40. The specification further states that the auto sensing Ethernet port 120 includes detection logic 130 and blocking logic 132 responsive to the detection logic 130. '291 Patent col. 3 ll. 50–54. Thus, the intrinsic evidence indicates that the "Ethernet port" includes both a "physical port and software that provides data communication to and from the end user computer."

Indeed, the specification states that "[b]locking logic 132 is used to selectively initiate a blocking signal to disable communications received from the second interface 110 from being sent over the first interface 108 to the end-user computer 104." '291 Patent col. 3 ll. 54–58. Grande concedes that the term can refer to a physical Ethernet connection or to a software-defined network communications port. (Dkt. #41 at 21). The extrinsic evidence submitted by Grande is consistent with this and states that "the term 'port' . . . may refer to 1) a hardware port, 2) an Internet port number." Dkt. #41-4 at 2. Accordingly, the claimed "Ethernet port" is the "physical port and software that provides data communication to and from the end user computer."

In part, the Court rejects Grande's construction because it uses the term "Ethernet port" to define "Ethernet port." This is circular and unhelpful to a jury. Grande's construction also improperly narrows the claims and injects confusion by introducing vague terms like "relates exclusively," "single," and "collection of all physical hardware." Grande did not indicate, and the Court did not find, where any of these terms actually appear in the intrinsic record. And nothing in the intrinsic

record limits the term "Ethernet port" to strictly a "physical hardware" meaning—and definitely not to "the collection of all physical hardware that relates exclusively to the operation of a single ethernet port on a router."

To the extent that Grande argues that the "Ethernet port" is limited to physical hardware, the Court rejects that argument. As discussed above, the claims recite that the "blocking logic" is embedded within the Ethernet port and initiates blocking signals. Accordingly, the Court rejects Grande's construction. Finally, in reaching its conclusion, the Court has considered the extrinsic evidence submitted by the parties and given it its proper weight in light of the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"Ethernet port"** to mean **"physical port and software that provides data communication to and from the end user computer."**

E. "the idle time activity threshold"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"the idle time activity threshold"	It is Plaintiff's position that this claim term includes a typographical error within the patent. Plaintiff maintains that the term should instead recite and be construed as "the idle time inactivity threshold". Beyond this typographical correction, Plaintiff believes no construction is needed.	Indefinite for lack of antecedent basis.

1. The Parties' Positions

The parties dispute whether the term "the idle time activity threshold" is indefinite for lack of antecedent basis. CDN argues that the term "the idle time activity threshold" should be corrected by the Court to read "the idle time inactivity threshold" because this was a clear typographical error. (Dkt. #28 at 15). CDN contends that, with the exception of Claim 16, every other reference to "idle time . . . threshold" in the claims is a reference to "idle time inactivity threshold." (Dkt. #28 at 15). CDN further argues that the specification indicates that "idle time activity threshold" has the same meaning as "idle time inactivity threshold." (Dkt. #28 at 15) (citing '291 Patent col. 2 ll. 34–37, 60–64).

Grande responds that the lack of antecedent basis for the term "idle time activity threshold" renders the claim indefinite under 35 U.S.C. § 112 ¶ 2. (Dkt. #41 at 23) Grande argues that the specification does not "make[] clear" that "activity" was intended to mean "inactivity" in this claim. (Dkt. #41 at 23). Grande contends that the specification expressly and consistently contemplates embodiments that use an "activity threshold" as well as those that use an "inactivity threshold." (Dkt. #41 at 23) (citing '291 Patent col. 2 ll. 34–37, col. 3 ll. 12–15, 1–5). According to Grande, one skilled in the art would understand that the '291 Patent contemplates embodiments that employ an idle time activity threshold, as well as those that employ an idle time inactivity threshold. (Dkt. #41 at 24). Grande argues that the purposeful use of "activity" without an antecedent basis in the claim places those skilled in the art in the "zone of uncertainty" with respect to what activity falls within its scope. (Dkt. #41 at 24).

CDN replies that the "threshold" is a measure of the amount of "idle time," and whether this is called an "activity" threshold or an "inactivity" threshold is of no significance because the threshold is the same amount of time either way—the time that an end-user computer is idle. (Dkt. #43 at 15). CDN contends that Grande does not cite to evidence suggesting "activity threshold" is intended to mean something other than an amount of idle time, i.e., an amount of inactivity, of the end-user computer. (Dkt. #43 at 15–16). CDN further argues that there is only one reference to an "activity threshold," as opposed to "inactivity threshold," again indicating that the former is a typographical error. (Dkt. #43 at 16) (citing '291 Patent col. 2 ll. 34–37).

CDN also argues that claim 16 adds only the concept that the threshold is programmable and that there is only one reference in the specification to a "programmable" threshold, which recites an "idle time inactivity threshold." (Dkt. #43 at 16) (citing '291 Patent at 4:30–33). According to CDN, the logical conclusion is that "threshold" of Claim 16 refers to the same "threshold" recited in claim 9. (Dkt. #43 at 16).

2. Analysis

The term "the idle time activity threshold" appears in claim 16 of the '291 Patent. A court can correct an obvious typographical error in a claim only if "(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." *Novo Indus., L.P. v. Micro Molds Corp.*,

350 F.3d 1348, 1354 (Fed. Cir. 2003). The Court finds that both conditions are met in this instance. Accordingly, the Court corrects the term "the idle time activity threshold" to read "the idle time inactivity threshold" due to a clear typographical error.

With the exception of claim 16, every other reference to "idle time . . . threshold" in the claims is a reference to "idle time inactivity threshold." Only claim 16 recites "idle time activity threshold." To avoid the antecedent basis issue, the claim term should read as "inactivity" instead of "activity." It is clear that this is the type of typographical error that may be corrected by the Court. Claim 16 depends on claim 9 and uses "the" to introduce this phrase. This indicates that "an idle time inactivity threshold" in claim 9 was intended to provide the antecedent basis for "the idle time activity threshold" in claim 16. Likewise, claim 17 depends on claim 16 and recites "the idle time inactivity threshold," referring to the "idle time … threshold" of claim 16. Given the antecedent indicator (i.e., "the"), and given the closeness of "activity" to "inactivity," the Court finds that this is a clear typographical error. The Court further finds that no further construction is needed beyond the correction of the typographical error.

Grande argues that the specification contemplates embodiments that use an "activity threshold" as well as those that use an "inactivity threshold." (Dkt. #41 at 23). Grande contends that the claim as originally filed (claim 17) recites the same "activity threshold language" included in the specification. (Dkt. #41 at 24). Although, Grande is correct that the specification includes both "activity threshold language"

and "inactivity threshold language," the Court disagrees that this makes the correction subject to reasonable debate. The "threshold" is a measure of the amount of "idle time" and refers to the amount of time an end-user computer is idle. As discussed, the term at issue first appears in claim 16, which depends on claim 9 and which refers to this threshold as follows:

> . . . detecting at the routing equipment that the end-user computer has been idle for an idle time greater than *an idle time inactivity threshold* and determining an inactivity event at the routing equipment . . . .

'291 Patent col. 5 ll. 52–55. Claim 16 recites: "[t]he method of claim 9, wherein the idle time activity threshold is a programmable threshold." '291 Patent col. 6 ll. 16–17. Grande cites no evidence suggesting "activity threshold" is intended to mean something other than an amount of idle time (i.e., an amount of inactivity of the end-user computer). All references to "threshold" recited in the '291 and '699 Patents are to a measure of the amount of idle time, regardless of whether it is called an "idle time activity threshold" or "idle time inactivity threshold." It is the same threshold measuring the same event.

Indeed, claim 16 only adds the concept that the threshold is a programmable threshold. There is only one reference in the specification to a "programmable" threshold, and this reference recites an "idle time inactivity threshold." '291 Patent col. 4 ll. 30–33. Thus, the only conclusion to draw from the intrinsic evidence is that the "threshold" of claim 16 refers to the same "threshold" recited in claim 9. This correction is not subject to reasonable debate because the intrinsic evidence does not suggest a different interpretation of the claims.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"the idle time activity threshold"** to mean **"the idle time inactivity threshold."**

F. "the blocking logic is further adapted to allow communications to be sent over the first interface to at least one other end-user computer in the local area network"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"the blocking logic is further adapted to allow communications to be sent over the first interface to at least one other end-user computer in the local area network"	No construction needed.	The term is invalid for lack of written description support and/or lack of enablement.

The phrase "the blocking logic is further adapted to allow communications to be sent over the first interface to at least one other end-user computer in the local area network" is recited in Asserted Claim 6 of the '699 Patent. Grande argued in its brief that the phrase is invalid for lack of written description support and/or lack of enablement. During the claim-construction hearing, the parties agreed that this is not a matter of claim construction. Accordingly, the Court finds that the parties have withdrawn and waived any claim construction arguments related to this phrase.

Disputed Terms in the '532 Patent

G. "unique identifier"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"unique identifier"	No construction needed.	"a unique phrase, consisting of a predetermined number of words, with each word chosen from a predetermined list of words, that is associated with a single physical device such as a radio or cell phone"

1. The Parties' Positions

The parties dispute whether the term "unique identifier" requires construction. CDN argues that no construction of this term is necessary because the phrase speaks for itself. (Dkt. #28 at 20) (citing '532 Patent col. 2 ll. 52–55, col. 5 ll. 15–30). CDN contends that there is no mention of "a predetermined list of words" in the specification. (Dkt. #28 at 20). According to CDN, there is no reason to assume that either the patentee or the examiner intended for "unique identifier" to be limited only to the predetermined number of words or to the physical device association as Grande proposes. (Dkt. #28 at 21).

Grande responds that the '532 Patent specifically defines the "unique identifier" as the association of "each [device's] physical identification [with] a user assigned logical identification." (Dkt. #41 at 28) (citing '532 Patent col. 2 ll. 52–55, col. 4 ll. 49–50, 42–55). Grande argues that this means that the unique identifier includes a predetermined number of words ("slots") each filled from predetermined lists. (Dkt. #41 at 28) (citing '532 Patent col. 4 ll. 59–63). Grande asserts that the '532

Patent emphasizes that the advantage provided over the prior art is the ability for a user to "send a message to the two-way radio with a physical identification associated with the logical identification," i.e., with the unique identifier. (Dkt. #41 at 28) (citing '532 Patent col. 5 ll. 30–39). Grande argues that its construction defines the term "unique identifier" to correspond to the understanding that those skilled in the art would have in light of the intrinsic evidence. (Dkt. #41 at 29).

CDN replies that Grande fails to recite any definitional statements in the specification or a basis to suggest that the applicant intended to limit the scope of the claimed inventions to "a single physical device such as a radios [sic] or cell phone." (Dkt. #43 at 17). CDN argues that the specification alludes to relevant concepts in the art which had shortcomings at the time of the invention. (Dkt. #43 at 17) (citing '532 Patent col. 1 ll. 41–45, col. 2 ll. 20–22). According to CDN, the specification shows "identifiers" cover far more than just physical devices, such as commands to control device functional and security codes and account codes. (Dkt. #43 at 18).

2. Analysis

The term "unique identifier" appears in claims 1 and 7 of the '532 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. Grande argues that CDN's proposal to provide no construction does not give the term "its meaning to the ordinary artisan after reading the entire patent." *Phillips*, 415 F.3d at 1321. The Court agrees. "[O]ne of ordinary skill in the art would rely" on the description in the specification "to ascertain the metes and bounds" of the claim term "unique identifier." *Meds. Co. v.*

Mylan, Inc., 853 F.3d 1296, 1309 (Fed. Cir. 2017). Specifically, the subsection titled "Device Identification and Message Addresses" defines the "unique identifier" as the association of "each [device's] physical identification [with] a user assigned logical identification." '532 Patent col. 4 ll. 49–50. Specifically, the specification states the following:

> The two-way asynchronous radio according to the invention can use the following identification scheme to address messages. Three types of identification spaces are defined, physical, logical, and name space.
>
> Each radio has a unique physical identification that is "factory" assigned and unalterable. In practice, the useable physical identification space is very large, e.g., $>10^{10}$, or larger.
>
> Associated with each physical identification is a user assigned logical identification. The logical identification is specified by a spoken phrase that includes a predetermined number of word "slots," e.g., six slots. The words to fill the slots are selected from relatively small sets of unique words according to a vocabulary in a target language, e.g., there is a set of thirty-two word choices for each of the six slot [sic] in the phrase.

'532 Patent col. 4 ll. 42–55. The logical identification as defined here corresponds to the unique identifier. *See, e.g.*, '532 Patent col. 2 ll. 52–55 ("[U]nique identifiers can be generated by selecting one word from each set for each slot for each identifier . . . ."). The specification further states that "[t]he user assigns the selected logical identification when the two-way radio is first used" and that "[a]t that time, the physical identification and logical identification can be stored in the memory 250 and transmitted to a common storage of a service provider for verification as to its uniqueness." '532 Patent col. 4 ll. 59–63. Moreover, the '532 Patent emphasizes that the advantage provided over the prior art is the ability for a user to "send a message to the two-way radio with a physical identification associated with the logical

identification," (i.e., with the unique identifier). '532 Patent col. 5 ll. 30–39. Accordingly, a person of ordinary skill in the art would understand that the unique identifier is a user assigned logical identification associated with a physical identification of a device.

The Court does not adopt Grande's entire construction because it is redundant of the surrounding claim language and would be confusing. Claim 1 recites "generating a plurality of unique identifiers by selecting one word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier." Thus, Grande's proposed phrase "consisting of a predetermined number of words, with each word chosen from a predetermined list of words" unnecessarily redrafts this claim language.

The Court rejects CDN's argument that the "identifiers" cover more than just physical devices. Claims are not construed in a vacuum but must be considered in the context of the intrinsic record. *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history." (alteration in original) (citation omitted)); *V-Formation, Inc. v. Benetton Grp. SpA*, 401 F.3d 1307, 1310 (Fed. Cir. 2005) (stating that the intrinsic record "usually provides the technological and temporal context to enable the court to ascertain the meaning of the claim to one of ordinary skill in the art at the time of the invention").

As illustrated above by the citations to the specification, CDN's contention is divorced from the intrinsic record. For example, the specification emphasizes that the advantage provided over the prior art is the ability for a user to "send a message to the two-way radio with a physical identification associated with the logical identification," i.e., with the unique identifier. '532 Patent col. 5 ll. 30–39. To the extent that CDN contends that "identifiers" cover more than just physical devices, such as commands to control device functional and security codes and account codes, the Court rejects that argument.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"unique identifier"** to mean **"user assigned logical identification associated with a physical identification of a device."**

H. "generating a plurality of unique identifiers by selecting one or more word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"generating a plurality of unique identifiers by selecting one or more word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier"	No construction needed.	"storing in memory two or more unique identifiers, where each unique identifier consists of a selection of one predetermined word from each predetermined word slot."

1. The Parties' Positions

The parties dispute whether the phrase "generating a plurality of unique identifiers by selecting one or more word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 21). CDN contends that the phrase conveys to the reader that a plurality of unique identifiers will be generated by selecting one word from each set of unique words for each word slot for each unique identifier such that a concatenating of the selected words in the predetermined order will form the unique identifier. (Dkt. #28 at 22). CDN further argues that neither the word "memory" nor the phrase "storing in memory" are used in the specification. (Dkt. #28 at 22). CDN asserts that the concept of "storage" is only introduced in claim 2 of the '532 Patent. (Dkt. #28 at 22).

Grande responds that CDN incorrectly asserts that the word "memory" is not used in the specification. (Dkt. #41 at 29) (citing '532 Patent col. 2 ll. 58–60, col. 3 ll. 16–23, col. 4 ll. 59–63, Figure 2). Grande contends that the written description of Figure 2 states that the radio contains "local memory 250 to store . . . user supplied data." (Dkt. #41 at 29) (citing '532 Patent col. 3 ll. 16–23). Grande argues that the logical identification, expressly described as stored in memory, corresponds to the unique identifier. (Dkt. #41 at 30). Grande further argues that courts have consistently held that the phrase "a plurality of" means "at least two of." (Dkt. #41 at 30).

Grande also contends that the '532 Patent specifically instructs those of ordinary skill that it is the implementation of "unique identifiers" that allows a user to "send a message to the two-way radio with a physical identification associated with the logical identification." (Dkt. #41 at 30) (citing '532 Patent col. 5 ll. 30–39). Grande argues that CDN's suggestion that the "unique identifier" can be interpreted on its face as not stored in memory is at odds with the written description. (Dkt. #41 at 30).

CDN replies that Grande's construction reads out the terms "generating," "from each set," "such that a concatenating of," and "predetermined order" from this phrase. (Dkt. #43 at 18). CDN further argues that Grande's proposal also attempts to substitute its proposed concept of "storing in memory" for the claimed concept of "generating" and provides no rationale for why one phrase must be substituted for the other. (Dkt. #43 at 18). CDN contends that Grande also ignores that the claim calls for the formation of the unique identifier by concatenating the selected words in a predetermined order. (Dkt. #43 at 18).

2. Analysis

The term "generating a plurality of unique identifiers by selecting one or more word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier" appears in Asserted Claim 1 of the '532 Patent. The Court finds that the term should be given its plain and ordinary meaning. Grande's construction improperly and unnecessarily redrafts the phrase. First, Grande's construction reads out a number of words from this phrase, including "generating," "from each set," "such that a concatenating of,"

and "predetermined order." Moreover, Grande's construction also incorrectly substitutes its proposed concept of "storing in memory" for the claimed concept of "generating." Grande provides no reason for redrafting "generating" as "storing in memory" as it proposes.

Grande also provides no reason for redrafting "selecting one or more word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier" to mean "where each unique identifier consists of a selection of one predetermined word from each predetermined word slot." As discussed above, this reads out a number of terms from the phrase as originally drafted by the patentee. Accordingly, the Court rejects Grande's construction. Finally, the Court agrees that "a plurality of" means "at least two of." *E.g., SIMO Holdings Inc. v. H.K. uCloudlink Network Tech. Ltd.*, 983 F.3d 1367, 1377 (Fed. Cir. 2021). But a jury would understand that this is the plain meaning of "plurality."

3. Court's Construction

For the reasons set forth above, the phrase **"generating a plurality of unique identifiers by selecting one or more word from each set for each word slot for each identifier such that a concatenating of the selected words in the predetermined order form the unique identifier"** is given its **plain and ordinary meaning**.

I. "common storage"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"common storage"	No construction needed.	"a server-based storage system"

1. The Parties' Positions

The parties dispute whether the term "common storage" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 17–18). CDN contends that claim 2 conveys merely that the storage (i.e., memory) is some form of shared-access storage—i.e., common meaning communal. (Dkt. #28 at 18). CDN asserts that there is no reason to assume that either the patentee or the examiner intended for "common storage" to be limited only to "a server-based storage system." (Dkt. #28 at 18) (citing '532 Patent col. 4 ll. 60–63). CDN argues that the claim intended a broader concept of "common storage." (Dkt. #28 at 18).

Grande responds that under CDN's approach, even compact disks and USB memory sticks would qualify as "common storage." (Dkt. #41 at 31). Grande argues that its construction clarifies that "common storage" is required to be "a server-based storage system," which it contends is consistent with the intrinsic record. (Dkt. #41 at 31) (citing '532 Patent col. 4 ll. 6–11, 60–63). Grande contends that the disclosure is silent as to any other type of memory. (Dkt. #41 at 31). According to Grande, one of ordinary skill would understand the "common storage" of the service provider as being implemented by the contemporaneously described "servers 510 operated by the service provider." (Dkt. #41 at 31).

CDN replies that Grande incorrectly limits the claims to exemplary embodiments. (Dkt. #43 at 18). CDN contends that reference to "servers" and "common storage of a service provider" are made in the "Detailed Description of the Preferred Embodiment" section of the specification. (Dkt. #43 at 18). CDN further contends that the "server" reference is prefaced by the qualifier "a practical embodiment," and the "common storage of a service provider" statement in the specification states that this "*can be*" a type of common storage location in which the identification is stored. (Dkt. #43 at 19).

2. Analysis

The term "common storage" appears in Asserted Claim 2 of the '532 Patent. The Court finds that the term "common storage" should be construed to mean "a server-based storage system." The specification distinguishes between "memory 250" of "radio 100" in Figure 2 and "common storage" in "server 510" in Figure 5. For example, the specification states that "[i]n a practical embodiment, many users of the two-way radios 100 according to the invention concurrently communicate with each other using appropriate two-way wireless data communications technology" and that "[t]he base stations 501 (or satellites) are connected to servers 510 operated by communications service providers." '532 Patent col. 4 ll. 6–11. The specification further states that "the physical identification and logical identification can be stored in *the memory 250* and transmitted to a *common storage of a service provider* for verification as to its uniqueness." '532 Patent col. 4 ll. 60–63 (emphasis added). The specification is silent as to any other type of memory.

Contrary to CDN's contention, the logical identification (i.e., the unique identifier) would not be transmitted to a common storage if the common storage was local to the radio. Accordingly, CDN's proposal is inconsistent with the intrinsic record of the '532 Patent. Claims are not construed in a vacuum but must be considered in the context of the intrinsic record. *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.") (citation omitted); *V-Formation*, 401 F.3d at 1310 (stating that the intrinsic record "usually provides the technological and temporal context to enable the court to ascertain the meaning of the claim to one of ordinary skill in the art at the time of the invention").

3. Court's Construction

For the reasons set forth above, the Court construes the term **"common storage"** to mean **"a server-based storage system."**

J. "verifying the unique identifiers using a common storage device"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"verifying the unique identifiers using a common storage device"	No construction needed.	"using common storage to verify that a submitted unique identifier has not already been assigned to another physical device"

1. The Parties' Positions

The parties dispute whether the term "verifying the unique identifiers using a common storage device" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 18–19). CDN submits that claim 2 conveys that

the unique identifiers are verified using a common storage device. (Dkt. #28 at 19) (citing '532 Patent at 4:60–63). CDN contends that there is no mention of a "physical device" anywhere in the specification. (Dkt. #28 at 19). CDN further contends that there is no reason to assume that the specification refers to a verification of a physical device. (Dkt. #28 at 19).

Grande responds that its construction clarifies the meaning of this term to be consistent with the intrinsic evidence as to both (1) where the "verifying" takes place ("a server-based storage system") and (2) how the unique identifiers are verified (checking to see that "a submitted unique identifier has not already been assigned to another physical device"). (Dkt. #41 at 32). Grande argues that the specification clearly defines "common storage" as a "server-based storage system." (Dkt. #41 at 32). Grande further argues that the logical identification corresponds to the unique identifier. (Dkt. #41 at 32–33) (citing '532 Patent col. 4 ll. 59–63, col. 5 ll. 30–34). According to Grande, one skilled in the art is instructed that "verification as to its uniqueness" means "verify that a submitted unique identifier has not already been assigned to another physical device." (Dkt. #41 at 33). Grande contends that its construction is consistent with the claim language and the written description. (Dkt. #41 at 33).

CDN replies that the claims do have express limitation and thus do not allow for just "any analysis or evaluation" or for just "anyone" to perform the claim. (Dkt. #43 at 19). CDN argues that Grande's construction is divorced from any intrinsic support. (Dkt. #43 at 19). CDN contends that there is no basis to limit the

claims such that the "unique identifier" must be associated or otherwise "assigned" to a "physical device" and that the "unique identifier" can encompass many things, including non-physical items such as a functional command or an account code. (Dkt. #43 at 19).

2. Analysis

The term "verifying the unique identifiers using a common storage device" appears in Asserted Claim 2 of the '532 Patent. The Court finds that the term should be given its plain and ordinary meaning. As discussed above, the logical identification corresponds to the unique identifier. *See, e.g.*, '532 Patent col. 2 ll. 52–55 ("unique identifiers can be generated by selecting one word from each set for each slot for each identifier . . . ."). The specification further states that "[t]he user assigns the selected logical identification when the two-way radio is first used. At that time, the physical identification and logical identification can be stored in the memory 250 and transmitted to a common storage of a service provider *for verification as to its uniqueness*." '532 Patent col. 4 ll. 59–63 (emphasis added).

Moreover, the specification emphasizes that the advantage provided over the prior art is the ability for a user to "send a message to the two-way radio with a physical identification associated with the logical identification," i.e., with the unique identifier. '532 Patent col. 5 ll. 30–39. Thus, "verifying" cannot mean that the unique identifier could be associated with more than one physical identification because the communications service provider described in the '532 Patent would not be able to discern where to transmit a message associated with that unique identifier.

Accordingly, a person of ordinary skill in the art would understand that "verifying the unique identifiers" means exactly what it says, and the phrase will be given its plain and ordinary meaning.

But the Court's work is not finished because it disagrees with CDN about the term's plain and ordinary meaning. CDN argues that, based on the term's plain and ordinary meaning, "there is no basis to limit the claims such that the 'unique identifier' must be associated or otherwise 'assigned' to a 'physical device.'" (Dkt. #43 at 19). CDN further asserts that the "'unique identifier' can encompass many things," including non-physical items such as a functional command or an account code. (Dkt. #43 at 19). The Court disagrees. As previously stated, claims are not construed in a vacuum but must be considered in the context of the intrinsic record. *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.") (citation omitted); *V-Formation*, 401 F.3d at 1310 (stating that the intrinsic record "usually provides the technological and temporal context to enable the court to ascertain the meaning of the claim to one of ordinary skill in the art at the time of the invention").

As illustrated above, CDN's contention is divorced from the intrinsic record. For example, the specification emphasizes that the advantage provided over the prior art is the ability of a user to "send a message to the two-way radio with a physical identification associated with the logical identification," i.e., with the unique

identifier. '532 Patent col. 5 ll. 30–39. To the extent that CDN contends that "identifiers" cover more than just physical devices, such as functional command, security codes, or account codes, the Court rejects that argument.

3. Court's Construction

For the reasons set forth above, the phrase **"verifying the unique identifiers using a common storage device"** is given its **plain and ordinary meaning** but rejects CDN's contention that the "unique identifiers" cover more than just physical devices.

K. "recognizing a particular unique identifier with a speech recognizer"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"recognizing a particular unique identifier with a speech recognizer"	No construction needed.	Invalid for failing to comply with the enablement requirement.

The phrase "recognizing a particular unique identifier with a speech recognizer" is recited in Asserted Claim 7 of the '532 Patent. Grande argued in its brief that the phrase is invalid for failing to comply with the enablement requirement. During the claim-construction hearing, the parties agreed that this is not a matter of claim construction. Accordingly, the Court finds that the parties have withdrawn and waived any claim-construction arguments related to this phrase.

Disputed Terms in the '714 Patent

L. "a descriptor corresponding to each secondary signal characterizing the corresponding primary video signal"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"a descriptor corresponding to each secondary signal characterizing the corresponding primary video signal"	No construction needed.	"a descriptor is information multiplexed into the digital signal and describes the content of the digital signal"

1. The Parties' Positions

The parties dispute whether the phrase "a descriptor corresponding to each secondary signal characterizing the corresponding primary video signal" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 25). CDN contends that the phrase conveys that a descriptor characterizes a secondary signal and that the second signal corresponds to a primary signal. (Dkt. #28 at 25–26). CDN submits that there is no instance of Grande's proposed definition anywhere in the specification. (Dkt. #28 at 26) (citing '714 Patent col. 2 ll. 20–21, 35–38). According to CDN, Grande's construction places a limitation in the claim that the patentee did not intend and would not resolve the meaning and technical scope of term. (Dkt. #28 at 26).

Grande responds that the data descriptor is information ("a group of fields") multiplexed into the signal that describes the content of ("characterizes") the signal. (Dkt. #41 at 35). Grande argues that the specification explains that descriptors are inserted into the mosaic to show "a group of reduced-format TV programs corresponding to [the user's] choice" and that the user "can thus easily select a

reduced-format TV program from the mosaic." (Dkt. #41 at 35) (citing '714 Patent col. 1 ll. 58–64, col. 7 ll. 35–40). Grande contends that CDN's interpretation is at odds with the written description. (Dkt. #41 at 35).

CDN replies that claim 12 does not use "multiplexed" or any variation of this word, while other claims expressly recite a "multiplexer" (e.g., claim 1) or "multiplexing" (e.g., claims 13 and 15). (Dkt. #43 at 20). CDN argues that Grande tries to rationalize the insertion of "multiplexed" by pointing to a line in the specification discussing multiplexing. (Dkt. #43 at 20). CDN further argues that Grande uses "digital signal" instead of the claimed "primary signal" and "secondary signal." (Dkt. #43 at 20). CDN contends that there is no evidence showing the claims must be limited to one particular embodiment. (Dkt. #43 at 20).

2. Analysis

The phrase "a descriptor corresponding to each secondary signal characterizing the corresponding primary video signal" appears in Asserted Claim 12 of the '714 Patent. The Court finds that Grande's construction reads an unwarranted "multiplexing" requirement into the claim. Claim 12 of the '714 Patent does not recite "multiplexed" or any variation of this word. In contrast, other claims expressly recite a "multiplexer" (e.g., claim 1) or "multiplexing" (e.g., claims 13 and 15). "[W]hen a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement. . . . There is a rebuttable presumption that different claims are of different scope." *Amgen Inc. v. Hoechst Marion Roussel*, 314 F.3d 1313, 1326 (Fed.

Cir. 2003) (citations omitted). Accordingly, the Court rejects this aspect of Grande's construction.

In its brief, Grande correctly references the description of multiplexing in the specification. (Dkt. #41 at 35) (citing '714 Patent col. 2 ll. 14–25, col. 3 ll. 34–42, col. 7 ll. 35–40). But Grande ignores the plain language of the claims that indicates that the patentee understood how to claim a "multiplexing" requirement but intended not to do so in claim 12. It would be improper to read a "multiplexing" requirement into this disputed term. *3M Innovative Props*, 725 F.3d at 1321("While we construe the claims in light of the specification, limitations discussed in the specification may not be read into the claims.").

Grande's construction also improperly redrafts the disputed phrase. Specifically, Grande's construction replaces "primary video signal" and "secondary signal" with "digital signal." This removes the intended meaning and confuses the claim language. Accordingly, the Court rejects Grande's construction.

3. Court's Construction

For the reasons set forth above, the phrase **"a descriptor corresponding to each secondary signal characterizing the corresponding primary video signal"** is given its **plain and ordinary meaning**.

M. "multiplexing the plurality of coded video signals with the plurality of coded sub-sampled video signals associated with their additional data to provide an output video signal"

Disputed Term	CDN's Proposal	Defendant's Proposal
"multiplexing the plurality of coded video signals with the plurality of coded sub-sampled video signals associated with their additional data to provide an output video signal"	No construction needed.	The term "additional data" is in reference to the descriptor.

1. The Parties' Positions

The parties dispute whether the term "additional data," in the disputed phrase, corresponds to the data descriptor, as Grande proposes. CDN argues that no construction of this term is necessary. (Dkt. #28 at 27). CDN contends that there is one instance of use of "additional data" recited in the specification. (Dkt. #28 at 27) (citing '714 Patent col. 8 ll. 34–41). According to CDN, this one instance is a non-limiting embodiment of "additional data." (Dkt. #28 at 27) (citing '714 Patent col. 5 ll. 20–23). CDN argues that "additional data" is a plain English term that one skilled in the art would understand in the context of the claims. (Dkt. #28 at 28).

Grande responds that the only description of "additional data" is that it corresponds precisely to the data descriptor, which it contends is expressly identified as characterizing the "present invention." (Dkt. #41 at 36) (citing '714 Patent col. 3 ll. 36–42, col. 8 ll. 35–38). In response to CDN's argument that this description is non-limiting, Grande argues that non-limitation of the additional data with respect to the particular fields in the data descriptor does not suggest non-limitation as to whether

the additional data refers to the descriptor. (Dkt. #41 at 36). According to Grande, CDN should not be allowed to circumvent express declarations in the specification as to the nature of the "additional data." (Dkt. #41 at 36).

CDN concedes that the reference to "additional data" is likely intended to encompass at least "descriptor" information. (Dkt. #43 at 20). CDN argues that "additional data" is not intended to be synonymous with "descriptor" data. (Dkt. #43 at 20). According to CDN, "additional data" can encompass more than just "descriptor" information. (Dkt. #43 at 21). CDN submits that the applicant chose and the examiner allowed the broader phrase "associated with their additional data" instead of "descriptor data." (Dkt. #43 at 21) (citing '714 Patent col. 4 ll. 22–25). Finally, CDN argues that Figure 3 describes "a detailed embodiment," not the sole embodiment. (Dkt. #43 at 21) (citing '714 Patent col. 7 ll. 45–47).

2. Analysis

The term "multiplexing the plurality of coded video signals with the plurality of coded sub-sampled video signals associated with their additional data to provide an output video signal" appears in Asserted Claim 13 of the '714 Patent. During the claim-construction hearing, the parties agreed that the dispute is over the term "additional data" recited in this phrase. Thus, the Court construes only the term "additional data" and finds that it means "including at least the descriptor."

Claim 13 recites a "plurality of coded video signals" and "a plurality of coded sub-sampled video signals." Claim 13 further recites "a descriptor characterizing the corresponding input video signal with each coded sub-sampled video signal." The

claim also recites the disputed phrase of "multiplexing the plurality of coded video signals with the plurality of coded sub-sampled video signals associated with their additional data to provide an output video signal." Thus, the basic structure of claim 13 indicates that the recited "additional data" is not randomly introduced into the claim but instead includes at least the previously recited descriptor.

This understanding is further confirmed by the specification. The specification states that the descriptors "allow the content of each TV program to be described" and comprise "a group of fields arranged in several sub-groups." '714 Patent col. 5 ll. 23–24, col. 7 ll. 13–15. The specification provides an exemplary table of non-limiting fields contained in each descriptor. '714 Patent col. 5 ll. 21–63. Consistent with claim 13, the specification further states that "additional data 337 corresponding to fields 4, 5, 6 and 7 (cf. Table 1) of the data descriptors relating to the limited group of sub-sampled video signals may be inserted into the mosaic." '714 Patent col. 8 ll. 35–38.

Indeed, the specification states that "[t]hese fields allow additional indications to be provided on the TV program with regard to its content." '714 Patent col. 5 ll. 39–41. Specifically, fields 4–7 include "title," "producer," "duration," and "station number." '714 Patent col. 5 ll. 39–41. Accordingly, a person of ordinary skill in the art would understand that "additional data" means "including at least the descriptor." In this regard, CDN concedes that "the reference to 'additional data' is likely intended to encompass at least 'descriptor' information." (Dkt. #43 at 26).

CDN contends that the specification states that this table is "non-limitative." (Dkt. #28 at 27). The Court agrees to the extent that the term "additional data" means "including at least the descriptor." To the extent that CDN argues that the "additional data" is "untethered" to the descriptor, the Court rejects that argument.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"additional data"** to mean **"including at least the descriptor."**

N. "mosaic"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"mosaic"	No construction needed.	"a juxtaposition of sub-sampled active video signals displayed in a single image plane"

1. The Parties' Positions

The parties dispute whether the term "mosaic" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 24). CDN submits that the word "mosaic" conveys the purpose and intended claims scope sought by the patentee and allowed by the examiner. (Dkt. #28 at 24). CDN contends that Grande's construction narrows "mosaic" to one embodiment and does not resolve any known dispute as to meanings or technical scope of this term. (Dkt. #28 at 24). According to CDN, the specification does not suggest that the exemplary descriptions of "mosaic" were intended to define the parameters of this term. (Dkt. #28 at 24). CDN further contends that Grande attempts to add the concept "sub-sampled . . . video signal," which is already an element of this claim. (Dkt. #28 at 25).

Grande responds that its construction of "video signals displayed in a single image plane" is amply supported by the specification. (Dkt. #41 at 37) (citing '714 Patent col. 3 ll. 58–61, col. 7 ll. 4–7, 32–33, col. 8 ll. 33–34). Grande argues that its construction of "active" video signals will help the jury to distinguish the claimed "mosaic" from, for example, a static listing of available programs in an on-screen channel guide. (Dkt. #41 at 37). According to Grande, the specification repeatedly indicates to one skilled in the art that the mosaic includes only active video signals, even if the specific word "active" is not applied. (Dkt. #41 at 37–38) (citing '714 Patent col. 1 ll. 22–23, col. 4 ll. 54 – col. 5 ll. 11). Grande contends that those skilled in the art can recognize that encoding video signals in MPEG video formats and displaying them together on the same screen necessarily implies "active" video signals. (Dkt. #41 at 38). Grande further asserts that CDN's understanding would impermissibly ignore the repeated and consistent characterization of the term in the specification of the '714 Patent. (Dkt. #41 at 38).

CDN replies that Grande improperly attempts to insert the term "active" into the claim. (Dkt. #43 at 21). According to CDN, the specification is clear that at least one embodiment of the invention includes a static image. (Dkt. #43 at 21) (citing '714 Patent col. 6 ll. 63–65). CDN contends that no construction is necessary for "mosaic." (Dkt. #43 at 21).

2. Analysis

The term "mosaic" appears in Asserted Claim 17 of the '714 Patent. The Court finds that the term "mosaic" should be construed to mean "a juxtaposition of TV programs in the same plane in a reduced format." The specification states that "[t]he

object of the invention is . . . to allow a user to select a particular TV program quickly and in a relevant manner from a mosaic of TV programs displayed on his television set." '714 Patent col. 2 ll. 1–6. The specification further states that the "mosaic" comprises "a juxtaposition on the user's television set of said TV programs in a reduced format." '714 Patent col. 1 ll. 20–22. The specification describes one embodiment as "decoded signals . . . assembled in the form of a mosaic by means of an image compositor 334, this compositor juxtaposing the different sub-sampled video signals in the same plane." '714 Patent col. 8 ll. 31–34. Figure 5 illustrates a mosaic of TV programs displayed on a television set.

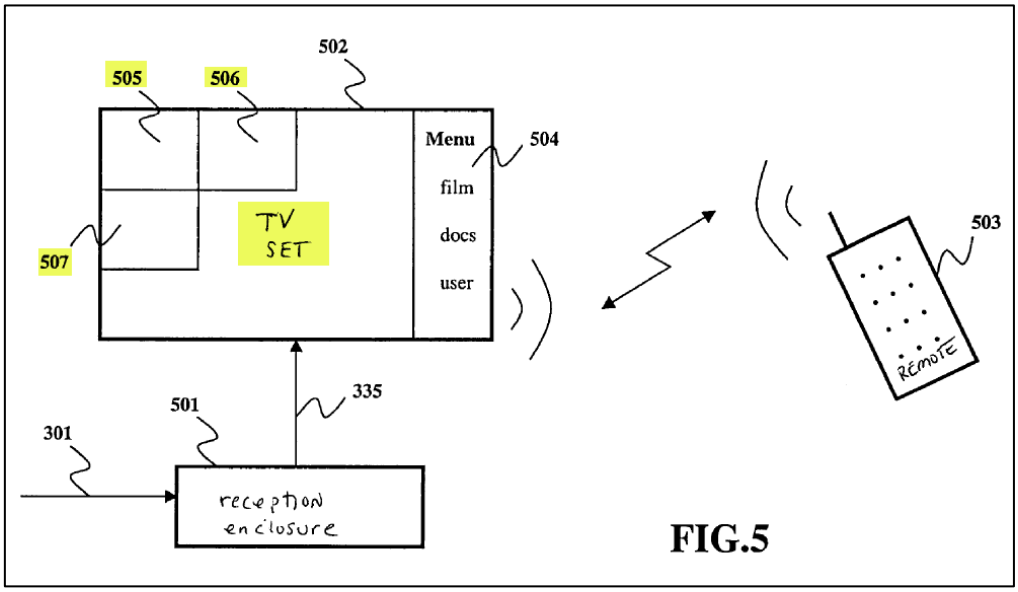


FIG.5

'714 Patent at Figure 5 (highlighting added). The specification states that "[b]y way of example, a mosaic of TV programs is composed of 3 sub-sampled video signals 505, 506 and 507." '714 Patent col. 9 ll. 53–54. Accordingly, a person of ordinary skill in the art would understand "mosaic" means "a juxtaposition of TV programs in the same plane in a reduced format."

The Court does not adopt Grande's construction for the following reasons. First, Grande's construction improperly inserts the term "active" into the claim. Contrary to Grande's contention, the specification discloses an embodiment that includes a static image. Specifically, the specification states that "[a]t the extreme, it should be noted that if the frame frequency of these signals is zero, a TV program is represented by a single image." '714 Patent col. 6 ll. 63–65. Courts "normally do not interpret claim terms in a way that excludes embodiments disclosed in the specification." *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276 (Fed. Cir. 2008). Accordingly, the Court rejects this aspect of Grande's construction.

Second, Grande's construction includes the phrase "sub-sampled . . . video signal." But a "sub-sampled . . . video signal" is already recited in the claim. Specifically, claim 17 recites "creating a mosaic from a select group of *sub-sampled video signals* selected from the plurality of coded sub-sampled video signals based on the data descriptors and a user request." Grande's construction also includes the phrase "single image plane." Grande argues that this condenses the teachings of the specification into plain language for the jury. (Dkt. #41 at 37). Instead of redrafting the claim language, the Court prefers to use the language that appears in the intrinsic evidence.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"mosaic"** to mean **"a juxtaposition of TV programs in the same plane in a reduced format."**

Disputed Terms in the '180 Patent

O. "providing one or more source contents in a predetermined format"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"providing one or more source contents in a predetermined format"	No construction needed.	"making available one or more documents or applications, which contain formatting information, prior to display limitations and viewing preferences being used to modify that formatting information to generate the display content"

1. The Parties' Positions

The parties dispute whether the phrase "providing one or more source contents in a predetermined format" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 29). CDN submits that the phrase conveys to the reader of claim 1 that one or more source contents are provided in a predetermined format. (Dkt. #28 at 29). CDN contends that the specification does not limit "source contents" to "document or applications, which contain formatting information." (Dkt. #28 at 29). According to CDN, Grande's proposed definition only stands to limit the claims by adding "prior to display limitations and viewing preferences being used to modify that formatting information to generate the display content." (Dkt. #28 at 29).

Grande replies that its construction represents the plain meaning of the term based on the specification. (Dkt. #41 at 39). According to Grande, the '180 Patent clearly explains that the "source content" is a document relating to webpages or documents used with other "applications." (Dkt. #41 at 39) (citing '180 Patent col. 4

ll. 35–53, 59–61). Grande contends that this is the only "source content" identified in the specification. (Dkt. #41 at 39) (citing '180 Patent col. 10 ll. 63–64).

Grande further argues that its construction makes clear that the "source content" must contain formatting information in order to provide the dynamic mapping in a "predetermined format." (Dkt. #41 at 39) (citing '180 Patent col. 6 ll. 10–14, col. 10 ll. 18–22). Grande contends that this formatting information is modified to generate the display content. (Dkt. #41 at 39). Grande also argues that its construction addresses the meaning of "source contents" as well as "in a predetermined format" using the description provided in the specification. (Dkt. #41 at 39–40) (citing '180 Patent col. 3 ll. 40–67, col. 4 ll. 46–53, col. 6 ll. 10–27).

CDN replies that "making available" is not the same as "providing" and that Grande provides no evidence to support imposing one in place of the other. (Dkt. #43 at 22). CDN also argues that claim 1 indicates that the applicant intended to differentiate "source contents" and "display documents" because the claim separately recites these terms. (Dkt. #43 at 22). According to CDN, claim 1 recites that the "display document" is generated in the "generating" step of the method, while the "source contents" are provided in the "providing" step of the method. (Dkt. #43 at 22). Finally, CDN argues that neither the claim nor the specification characterizes the content itself as "formatting information." (Dkt. #43 at 22). CDN contends that even the limited uses of "formatting" in the specification use this word as a verb, not as an adjective to describe what the source contents are. (Dkt. #43 at 22).

2. Analysis

The phrase "providing one or more source contents in a predetermined format" appears in Asserted Claim 1 of the '180 Patent. The term "source contents" appears only once in the specification, and it is basically a restatement of the claim language. '180 Patent col. 3 ll. 31–34. That said, a person of ordinary skill in the art would understand that "source content" is linked to the description of the "application description file." '180 Patent col. 4 ll. 34–38. Specifically, the specification states that "[a] first computer system 302 is initially used to create an application description file." '180 Patent col. 4 ll. 46–47. The specification further states that the application description file is "formatted to describe contents to be displayed on any display device." '180 Patent col. 4 ll. 51–53. Accordingly, the Court construes the phrase "providing one or more source contents in a predetermined format" to mean "providing one or more files formatted to describe contents to be displayed on any display device." This is further confirmed by the specification's description of the first class of information contained in the application description file. '180 Patent col. 5 ll. 14–40.

Grande argues that identifying the "source content" as "documents or applications" is consistent with the specification. (Dkt. #41 at 39). The Court generally agrees. Yet, to be clear, the term "files" in the Court's construction is not limited to "documents" but could also include applications formatted to be displayed on a display device. *See, e.g.*, '180 Patent col. 1 ll. 27–28 ("It is a common practice to store a document or an application (collectively 'document') on a server computer."); '180 Patent col. 3 ll. 22–25 ("A method is thus needed for effectively and efficiently

creating and maintaining a document/application for a wide array of display devices with varying display characteristics to meet the needs of different users of the display device.").

Grande also argues that its construction makes clear that the "source content" must contain "formatting information" in order to provide the dynamic mapping in a "predetermined format." (Dkt. #41 at 39). The Court does not adopt Grande's "formatting information" language. While the claim calls for the source contents to be provided in a "predetermined format," neither the claim nor the specification characterizes the content itself as "formatting information." Similarly, Grande fails to provide a persuasive reason to redraft "providing" as "making available."

The Court also rejects the remainder of Grande's construction because it appears to limit the method step to a specific order. "[A]s a general rule [a method] claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order." *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1345 (Fed. Cir. 2008). Grande did not provide a reason for adopting this portion of its construction.

3. Court's Construction

For the reasons set forth above, the Court construes the phrase **"providing one or more source contents in a predetermined format"** to mean **"providing one or more files formatted to describe contents to be displayed on any display device."**

P. "recognizing the display limitations of the display device from a first information source" (Claim 1) and "determining the viewing preferences of the user from a second information source" (Claim 1)

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"recognizing the display limitations of the display device from a first information source" (Claim 1) and "determining the viewing preferences of the user from a second information source" (Claim 1)	No construction needed.	The "first information source" is different than the "second information source."

1. The Parties' Positions

The parties dispute whether the term "first information source" should be construed to be "different" from the "second information source." CDN argues that no construction of this term is necessary. (Dkt. #28 at 29–30). CDN submits that the phrase conveys that the display limitations of the display device are recognized from the first information source. (Dkt. #28 at 30). CDN further contends that the claim language is clear to one skilled in the art. (Dkt. #28 at 30).

Grande responds that its construction of these terms clarifies that the "first information source" and the "second information source" are different sources and cannot be the same information source. (Dkt. #41 at 40). Grande argues that if the "first information source" and "second information source" were identical, this would improperly render the phrase "second" superfluous. (Dkt. #41 at 40). Grande contends that the specification explains that the "mapping system" can take "[t]hree classes of information" from the application description file to generate a presentable webpage. (Dkt. #41 at 40–41) (citing '180 Patent col. 5 ll. 14–20, 42–47, col. 6 ll. 1–9). According

to Grande, if the two separately identified "information sources" referenced in claim 1 were intended to be the same source, the patentee would not have differentiated between a "first" and "second" "information source." (Dkt. #41 at 41).

CDN agrees that the origin of the information claimed as the "first information source" may be different from the origin of the information of the "second information source," but it argues that this information may be passed to and reside from either separate sources or the same source. (Dkt. #43 at 22). According to CDN, the claim makes it apparent that one source is tied to a display while the other source is tied to a user. (Dkt. #43 at 23) (citing '180 Patent col. 5 ll. 42–45, col. 6 ll. 1–9). CDN further contends that the specification indicates that two sets of information may be obtained from the same "application description file." (Dkt. #43 at 23) (citing '180 Patent col. 5 ll. 14–20, 42–47).

CDN also submits that the specification consistently reveals that both sets of information may be passed to and reside within the same eventual source (e.g., database or display device). (Dkt. #43 at 23). CDN contends that defining the original "first source" as necessarily different from the original "second source," without clarifying that the different sets of information may ultimately be obtained from the same shared source, is wrong and will only add confusion. (Dkt. #43 at 23).

2. Analysis

The phrase "recognizing the display limitations of the display device from a first information source," and the phrase "determining the viewing preferences of the user from a second information source" appear in Asserted Claim 1 of the '180 Patent. The claim recites the "first information source" in the context of the display

limitations and the "second information source" in the context of the viewing preferences. As discussed above, the specification describes all of the "information sources" in the context of an "application description file." '180 Patent col. 4 ll. 34–53.

Specifically, the specification states that "[t]hree classes of information are taken by the mapping system 306 from the application description file 402 for generating an appropriately presentable web page on a specific display device." '180 Patent col. 5 ll. 16–19. Consistent with the claims, the specification describes "[a] second class of information includes display limitation information 412 acquired either from a predetermined display device or from a database which contains information about the display device." '180 Patent col. 5 ll. 42–45. The specification further describes "[a] third class of information includes a user profile 414 which shows viewing preference information concerning any document to be display on the target display device." '180 Patent col. 6 ll. 1–3. Accordingly, the Court construes the term "first information source" to mean "first class of information" and the term "second information source" to mean "second class of information."

The Court generally agrees with Grande that different terms in a claim are construed to have different meanings and that meaning should be given to all terms in a claim. *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). The problem is that Grande argues that the "first information source" and the "second information source" are different sources and cannot be the same "information source." (Dkt. #41 at 40). In other words, it appears that Grande

contends that each "source" cannot be from the same "application description file." (Dkt. #41 at 40).

Grande's argument contradicts the specification, which indicates that the application description file includes three classes of information. '180 Patent col. 5 ll. 16–19. Indeed, Grande cites to a portion of the specification in which the two sets of information at issue may be obtained from the same "application description file." (Dkt. #41 at 41) (citing '180 Patent col. 5 ll. 14–20, 42–47). Thus, the intrinsic evidence indicates that although the origin of the display limitation information (e.g., display device) may be different from the origin of the viewing preference information (e.g., user), both sets of information may be passed to and reside within the same eventual source (e.g., database or display device). Thus, construing "source" as "class" is consistent with the specification.

3. Court's Construction

For the reasons set forth above, the Court construes the term **"first information source"** to mean **"first class of information"** and the term **"second information source"** to mean **"second class of information,"**

Q. "selecting one or more preferred display contents from the source contents by a mapping system in conformance with the display limitations and the viewing preferences"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"selecting one or more preferred display contents from the source contents by a mapping system in conformance with the display limitations and the viewing preferences"	No construction needed. Contrary to Defendant's assertion, this claim term is not a means-plus-function clause and thus does not invoke the construction requirements associated with 35 U.S.C. § 112(f). In the alternative, to the extent the Court determines that § 112(f) applies to this claim term, the function is selecting and the associated structures are personal computers, work stations, telephones, sound and video systems, security systems, ovens, refrigerators, PDAs (personal digital assistants) and equivalents to this structure.	The term "mapping system" is subject to 35 U.S.C. § 112, ¶ 6. The claimed function: reading viewing preferences and display limitations to generate a display document. The corresponding structure: One or more computer servers consisting of an application description file, database, ecommerce server, application server and ISP web server (as depicted in Figure 3) that are configured to perform a localization process (Col 6 lines 45-63), a prioritization process (Col 7 line 3 – Col 8 line 63), a selection process (Col 8 line 64 – Col 9 line 27) and an organization process (Col 9 line 28 – Col 10 line 11) to develop a display document.

1. The Parties' Positions

The parties dispute whether the term "mapping system" is subject to 35 U.S.C. § 112 ¶ 6. CDN argues that no construction of this term is necessary. (Dkt. #28 at 31–32). CDN contends that Grande offers no intrinsic or extrinsic evidence to rebut the presumption that § 112(6) does not apply. (Dkt. #28 at 32). Alternatively, CDN

argues that if the Court determines that § 112 ¶ 6 applies, it proposes an associated function and structure. (Dkt. #28 at 32).

Grande responds that "system" in the context of claim 1 is a nonce word. (Dkt. #41 at 41–42). According to Grande, the term "mapping system" should be construed as subject to the provisions of § 112 ¶ 6. (Dkt. #41 at 42). Regarding its construction, Grande argues that the '180 Patent explains that the claimed "source content" is a document relating to webpages, or documents used with other "applications." (Dkt. #41 at 42) (citing '180 Patent col. 4 ll. 35–53, 59–61, col. 5 ll. 56 – col. 6 ll. 9 Figure 4). Grande contends that the word "reading" is a simple way of encompassing both disclosed forms of obtaining the information. (Dkt. #41 at 42).

Grande also argues that the only disclosed corresponding structure for the "mapping system" present in the disclosure of the '180 Patent is one or more computer servers consisting of an application description file, database, e-commerce server, application server, and ISP web server that are configured to perform a localization process, a prioritization process, a selection process, and an organization process to develop a display document. (Dkt. #41 at 43) (citing '180 Patent col. 6 ll. 45–63, col. 7 ll. 3 – col. 10 ll. 11, Figure 3). Grande contends that CDN's attempt to identify the structure as end-user devices (personal computers, work stations, telephones, etc.) remote from the mapping system computer servers is in conflict with the teachings of the specification. (Dkt. #41 at 43) (citing '180 Patent col. 4 ll. 49 – col. 5 ll. 8). Grande argues that the specification consistently locates the mapping system functionality at a central server device. (Dkt. #41 at 43). Grande contends that the

specification is silent as to any end user device performing the functions of the mapping system. (Dkt. #41 at 43).

CDN replies that the specification provides detailed examples of the structure of the mapping system. (Dkt. #43 at 24) (citing '180 Patent col. 4 ll. 54 – col. 5 ll. 13). Regarding Grande's proposed structure, CDN argues that it ignores the teaching in the specification that the information to be mapped may be obtained either from a database or the "display device" itself. (Dkt. #43 at 24) (citing '180 Patent col. 5 ll. 42–45, col. 6 ll. 7–9). CDN further argues that the term "source contents" includes numerous types of documents, including sound and/or video documents, numerous types of applications, and/or other forms of source contents. (Dkt. #43 at 24) (citing '180 Patent col. 3 ll. 54–59).

2. Analysis

The phrase "selecting one or more preferred display contents from the source contents by a mapping system in conformance with the display limitations and the viewing preferences" appears in Asserted Claim 1 of the '180 Patent. The Court finds that the term is not subject to § 112 ¶ 6. Claim 1 does not recite the word "means for" or "steps for." Thus, there is a rebuttable presumption that § 112 ¶ 6 does not apply. Grande argues that the word "system" in the context of claim 1 is a nonce word and that the term "mapping system" should be construed as subject to the provisions of § 112 ¶ 6. The Court disagrees.

The court in *Williamson* stated that "'module' is a well-known nonce word." *Williamson*, 792 F.3d at 1348. But the Court finds that the term "system" as used

here is different from the word "module" in *Williamson*. *Id.* at 1348 ("What is important is . . . that the term, as the name for structure, has a reasonably well understood meaning in the art." (citation omitted)). In so finding, the Court applies long-standing principles articulated prior to the abrogated *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004). *See, e.g., Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004) ("[W]hen the structure-connoting term 'circuit' is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply," noting "language reciting [the circuits] respective objectives or operations"); *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003) ("While we do not find it necessary to hold that the term 'circuit' by itself always connotes sufficient structure, the term 'circuit' with an appropriate identifier such as 'interface,' 'programming' and 'logic,' certainly identifies some structural meaning to one of ordinary skill in the art."); *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 705 (Fed. Cir. 1998) ("Even though the term 'detector' does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as 'detectors.' We therefore conclude that the term 'detector' is a sufficiently definite structural term to preclude the application of § 112 ¶ 6."); *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (finding that "detent mechanism" was not a means-plus-function term because it denotes a type of device with a generally understood meaning in the mechanical arts)

Specifically, claim 1 of the '180 Patent recites the following (emphasis added):

> A method for dynamically creating a display document to fit on at least one display device in *a computer network* based on one or more display limitations of *the display device* and one or more viewing preferences of a user of *the display device*, the method comprising the steps of:
>
> providing one or more source contents in a predetermined format;
>
> recognizing *the display limitations of the display device* from a first information source;
>
> determining the viewing preferences of the user from a second information source;
>
> selecting one or more preferred display contents from the source contents by *a mapping system* in conformance with *the display limitations* and the viewing preferences; and
>
> generating the display document containing the preferred display contents to be *displayed on the display device*.

'180 Patent col. 10 ll. 63 – col. 11 ll. 12. The specification further refers to the mapping system in the context of computer systems, as evident from discussion of databases, application servers, and the end-user devices. '180 Patent col. 4 ll. 56–59 ("The mapping system 306 may have a user database which stores a series of user profiles, each user profile defining viewing preferences indicated by a user."), '180 Patent col. 4 ll. 49–51 ("[A] special mapping system 306 which, in some embodiments, may be located at an internet service provider (ISP)"), '180 Patent col. 5 ll. 5–8 ("[M]apping system 306 includes an application server 400 that receives information from an application description file 402, a database 404, and/or an e-commerce server 406.").

Although Grande has cited authority for the proposition that "system" is a "nonce" term that is simply a substitute for the word "means," these cases are not binding on this Court and do not address circumstances analogous to the above-discussed intrinsic evidence. *See Joao Control & Monitoring Sys., LLC v. Protect Am.,*

Inc., No. 1-14-CV-134-LY, 2015 WL 4937464, at *5 (W.D. Tex. Aug. 18, 2015); *Dyfan, LLC v. Target Corp.*, No. W-19-CV-00179-ADA, 2020 WL 8617821, at *8 (W.D. Tex. Nov. 24, 2020). Thus, the Court rejects Grande's arguments that "mapping system" is a means-plus-function term. Accordingly, the Court construes "mapping system" to mean "a computer system for mapping."

Grande argues that the specification is silent as to any end-user device's performing the functions of the mapping system. (Dkt. #41 at 43). CDN counters that "mapping system" may include personal computers, workstations, telephones, sound and video systems, security systems, ovens, refrigerators, PDAs (personal digital assistants). (Dkt. #28 at 32). The Court agrees with CDN that the "mapping system" is not precluded from being included in the end-user device. *Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1308 (Fed. Cir. 2003) ("The general rule, of course, is that claims of a patent are not limited to a preferred embodiment, unless by their own language.").

3. Court's Construction

For the reasons set forth above, the Court construes the term **"mapping system"** to mean **"a computer system for mapping."**

R. "viewing preferences"

Disputed Term	Plaintiff's Proposal	Defendant's Proposal
"viewing preferences"	No construction needed.	"viewing preferences are set by the user on the display device and control at least one aspect of how the source content is to be visually presented on the display device"

1. The Parties' Positions

The parties dispute whether the term "viewing preferences" requires construction. CDN argues that no construction of this term is necessary. (Dkt. #28 at 32–33). CDN submits that the specification conveys to the reader preferences concerning display of a document. (Dkt. #28 at 33) (citing '180 Patent col. 6 ll. 1–9). CDN argues that Grande improperly limits the claim to a specific embodiment by including the term "set by the user on the display device." (Dkt. #28 at 33). CDN also challenges Grande's assertion that this term must be replaced with a term that includes "source content." (Dkt. #28 at 33). CDN submits that this creates confusion within the entirety of claim 1. (Dkt. #28 at 33).

Grande responds that the specification explains that "viewing preferences" includes information that can be obtained from the display device and provides information about how source content (i.e., a document or application) is viewed on the display. (Dkt. #41 at 44) (citing '180 Patent col. 6 ll. 1–9). According to Grande, the document is displayed based on the viewing preferences set by the user on the display device. (Dkt. #41 at 44) (citing '180 Patent col. 3 ll. 28–29, col. 10 ll. 45–49). Grande also argues that CDN acknowledges that the "viewing preferences" take into consideration the configurations set by the user. (Dkt. #41 at 44). Grande submits that use of the claim language "source content" in its construction of "viewing preferences" is further subject to its construction of "source content" as "documents or applications." (Dkt. #41 at 44).

CDN replies that the claims at issue already recite "selecting one or more preferred display contents from the source contents by a mapping system in

conformance with the display limitations and the viewing preferences." (Dkt. #43 at 25) (citing '180 Patent col. 11 ll. 7–10). CDN argues that there is no reason to reintroduce this concept through a definition of "view preferences." (Dkt. #43 at 25). According to CDN, Grande's proposal would read out a preferred embodiment because it would require that the "viewing preferences are set by the user on the display device." (Dkt. #43 at 25). CDN contends that the specification makes clear that viewing preferences may be obtained from a database or a display device. (Dkt. #43 at 25) (citing '180 Patent col. 6 ll. 7–9).

2. Analysis

The term "viewing preferences" appears in Asserted Claims 1, 5 and 6 of the '180 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. As discussed above, the specification discloses that the "application description file" includes three classes of information. '180 Patent col. 5 ll. 16–19 ("Three classes of information are taken by the mapping system 306 from the application description file 402 for generating an appropriately presentable web page on a specific display device."). Regarding the "viewing preferences," or third class of information, the specification states the following:

> A third class of information includes a user profile 414 which shows viewing preference information concerning any document to be display [sic] on the target display device. The user profile 414 may provide information about a locale in which the person lives, a minimum size of characters that the user is capable of reading, or a natural language the user can or cannot read. Similar to the display limitations described above, the viewing preference information can be obtained from a database or directly from the display device.

'180 Patent col. 6 ll. 1–9. Thus, a person of ordinary skill in the art would understand that the terms "viewing preferences of the user" and "viewing preferences" mean "user preferences for displaying a document on the display device."

The Court does not adopt Grande's construction. First, Grande proposes construing "viewing preferences" as "viewing preferences . . . ." This is not helpful to a jury and indicates that the additional language in Grande's construction reads into the claims further unwarranted limitations. Moreover, the claim recites "selecting one or more preferred display contents from the source contents by a mapping system in conformance with the display limitations and the viewing preferences." Thus, Grande's construction of "control at least one aspect of how the source content is to be visually presented on the display device" is redundant and unnecessary.

Finally, Grande's construction incorrectly requires that the "viewing preferences are set by the user *on the display device*." The specification indicates that viewing preferences may be obtained from a database or a display device. '180 Patent col. 6 ll. 7–9 ("[S]imilar to the display limitations described above, the viewing preference information can be obtained from a database or directly from the display device."). "[A] claim construction that excludes the preferred embodiment is highly disfavored." *Duncan Parking v. IPS*, 914 F.3d 1347, 1364 (Fed. Cir. 2019) (citations omitted). Accordingly, the Court rejects Grande's construction.

3. Court's Construction

The Court finds that the terms **"viewing preferences of the user"** and **"viewing preferences"** are not subject to § 112 ¶ 6 and construes the terms to mean **"user preferences for displaying a document on the display device."**

V. CONCLUSION

The Court adopts the above constructions. The parties are ordered to not refer, directly or indirectly, to each other's claim-construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any part of this opinion, other than the definitions adopted by the Court, in the presence of the jury. The parties are also reminded that the testimony of any witness is bound by the Court's reasoning in this order but that any reference to claim-construction proceedings is limited to informing the jury of the definitions adopted by the Court.

So ORDERED and SIGNED this 13th day of August, 2021.

SEAN D. JORDAN
UNITED STATES DISTRICT JUDGE